

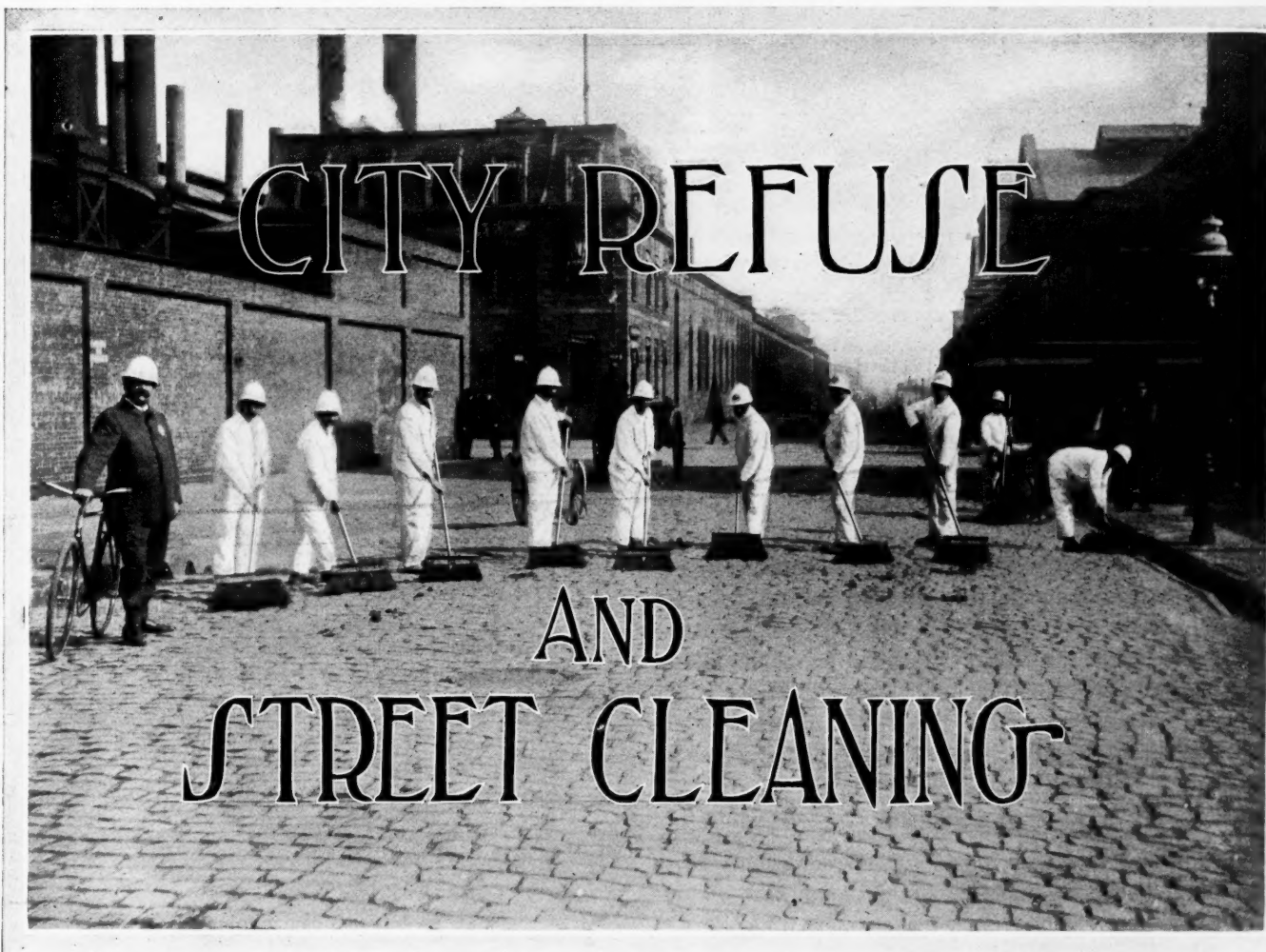
# Municipal Journal

## And Engineer

VOLUME XXIV.

NEW YORK, MAY 13, 1908.

No. 20



A SQUAD OF NEW YORK'S "WHITE WINGS" PATROL

THE most complete investigation of city refuse and its disposal made in this country during recent years forms the basis of a report to Mayor McClellan, of New York City, by a commission consisting of H. deB. Parsons, Rudolph Hering and Samuel Whinery. This commission examined conditions in all of the boroughs of the city and conducted considerable original work in the form of chemical analyses of garbage, ashes and other classes of refuse, determinations of their calorific value and measurements of their specific gravity. They also visited many other American cities and communicated with officials of foreign cities. An idea of the magnitude of the problem is given by the statement that during 1906 there was collected a mass of refuse, excluding snow, which would have made a pile one-quarter mile square and four feet nine inches high.

The results of the measurements of refuse are shown in the table on the next page.

The figures in the first table for Manhattan were derived from original measurements and also from certain figures, obtained by F. L. Stearns and D. C. Johnson.

Those for Brooklyn were obtained by Captain A. R. Piper, who is the operating head of the American Railway and Traffic Company, which has the contract for handling the ashes, rubbish and street sweepings of that borough. For Richmond the figures given are those obtained by J. T. Fetherston, which were given in detail in the MUNICIPAL JOURNAL AND ENGINEER of December 5, 1906.

There is seen to be quite a little variation in the average weights as determined in the different boroughs. There are probably reasons for this in each case. For instance, the street sweepings in Richmond are seen to weigh very much heavier than in either of the other boroughs. This is explained by the fact that practically all of the streets in that borough are macadam and mineral matter is conse-

## WEIGHT OF CITY REFUSE PER CUBIC YARD AND PER CAPITA

	AVERAGE WEIGHT PER CUBIC YARD, IN POUNDS			WEIGHT PER CAPITA PER YEAR IN POUNDS—1906					Average all New York, 1904, 1905 and 1906
	Manhattan and Bronx	Brooklyn	Richmond	Manhattan	Bronx	Brooklyn	Queens	Richmond	
Garbage.....	1,110	....	932	217	119	145	192	256	181
Ashes.....	1,086	975	1,200	1,327	708	496	544	561	936
Rubbish.....	143	154	200	108	51	88	61	40	93
Street sweepings.....	1,016	769	1,800	330	176	168	245	804	260
Total refuse.....	....	....	....	1,982	1,054	897	1,042	1,661	1,470

## STREET SWEEPINGS. VOLUMES AND WEIGHTS IN 1906

	MANHATTAN		BROOKLYN	
	Vol., Cu. Yds.	Weight, Tons	Vol., Cu. Yds.	Weight, Tons
Per mile of paved streets*.....	1,675	852	573	220
Per 1,000 square yards of pavement*.....	81	41	31	12
Per 1,000 population.....	325	165	218	84
Per 1,000 horses†.....	8,760	4,450	6,670	2,570

\*Excluding macadam roads. †Estimated, from census of 1900, at 80,367 horses in Manhattan and 46,987 in Brooklyn.

quently collected with the sweepings; whereas in the other boroughs these consist largely of horse droppings and other light matter removed from asphalt or other dense surfaces and therefore containing little mineral matter of any kind. The light weight in Brooklyn is probably explainable by the large quantity of light rubbish collected from the streets.

A large part of the report is devoted to the subject of street cleaning, as being that branch of the service which is at present most unsatisfactory. The commission compares machine sweeping, hand sweeping and washing or flushing.

## MACHINE SWEEPING

Machine sweeping they consider as not sufficiently effective, since, under the most favorable conditions, the revolving brooms remove only the coarser fragments of street dirt, leaving the finer particles which are really the most objectionable of the whole. Unless the street is sprinkled in advance of the sweeper, an intolerable dust is raised, while if the sprinkling is excessive and changes the dust into mud the broom simply plasters the mud more closely upon the surface, where, when it becomes dry, it is ground into dust by travel. Furthermore, where the pavement surface is rough or uneven, much of the coarser dirt is left in the depressions; this being particularly true of block pavements.

This method of street cleaning is favored in many cities because of the rapidity by which a given area may be covered and the erroneous impression that it is the most inexpensive method of cleaning. The commission endeavored to determine the relative cost of the various methods of street cleaning and, assuming a street paved with sheet asphalt, well constructed and in good repair, and that the work is done by the municipal force and plant, they estimate the costs as follows:

## COST OF OUTFIT

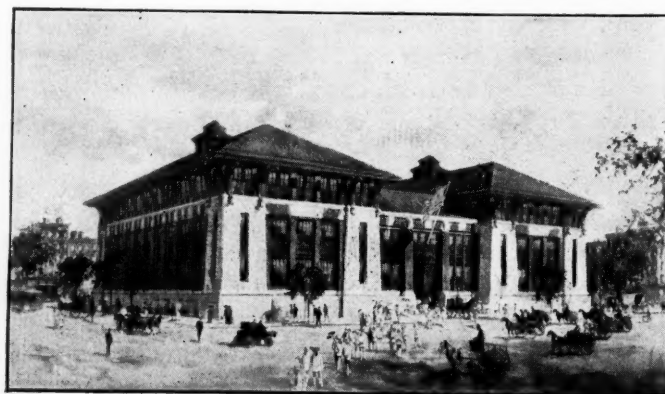
1 sweeping machine.....	\$275.00
*½ of a one-horse sprinkling wagon.....	104.00
12 hand brooms, at 65c.....	7.80
6 shovels, at 75c.....	4.50
2 horses for sweeper.....	600.00
*½ horse for sprinkler.....	150.00
2½ sets of harness, at \$25.00.....	62.50
	\$1,203.80

\*One sprinkling wagon serves for two sweepers.

The annual charges for this, estimating interest at 4 per cent., repairs and depreciation on tools 20 per cent. and depreciation on horses 15 per cent., are estimated at \$251.41 or \$.81 a day for 310 working days. The operating expenses per day are estimated as follows:

Maintenance of 2½ horses, at \$1.35.....	\$3.375
Rent, storage of sweeper.....	.20
Wages, 1 sweeper driver.....	2.19
Wages, ½ of sprinkler driver.....	1.095
Wages, 6 gutter sweepers, at \$2.19.....	13.14
15,000 gal. water used for sprinkling, at \$90 per million... ..	1.35
	\$21.35

This gives the grand total as \$22.16. It is estimated that the above outfit will sweep 70,000 square yards of street in 8 hours, making the cost \$.317 per 1,000 yards.



STREET CLEANING DEPARTMENT STABLE  
Flushing Avenue, Brooklyn



This does not include the cost of loading the sweepings into carts nor the fixed expenses.

Efforts have been made to improve the efficiency and economy of machine sweepers. With reference to pick-up machines, the commission states that they have been found to work satisfactorily under favorable conditions, but not one of them meets the conditions of every day use, especially when the street is wet and sloppy.



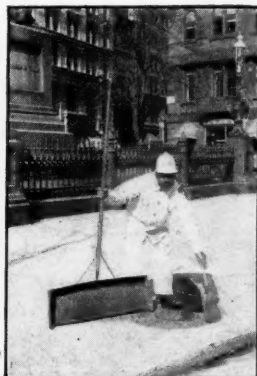
PATROL MAN AND HIS OUTFIT

#### HAND SWEEPING

Hand sweeping the commission considers to produce results superior to machine sweeping when the force is alert and reasonably industrious. The cost of hand sweeping, based on the same units of prices and conditions of the market as machine sweeping, is estimated as follows:

COST OF OUTFIT	
1 hand cart.....	\$10.00
5 cans for sweepings.....	12.50
4 hand brooms.....	2.60
1 shovel .....	.75
2 steel scrapers.....	4.00
	<hr/> \$29.85

The annual charges, with interest at 4 per cent. and repairs and depreciation at 60 per cent., would amount to \$19.10, or \$.062 per day, and the sweepers' wages to \$2.19,



SUNKEN CAN RECEIVER

Removing Can, Large Lid Raised Small lid raised for filling can



"WHITE WINGS" USING PUSH SCRAPER, IN CONNECTION WITH SUNKEN CAN RECEIVER

making the total cost per day \$2.252. As one sweeper will clean satisfactorily 8,000 square yards of pavement in 8 hours, the cost per 1,000 square yards would be \$.281. There is also a slight difference in favor of this method in the cost of placing the sweepings into carts. This method is therefore estimated to be 11 or 12 per cent. cheaper than machine sweeping.

Hand sweeping undoubtedly cleans the street more effectively than machine sweeping, especially where the pavements are rough and uneven. Hand sweeping also removes wet dirt and slime as machine sweeping will not. Concerning hand pick-up sweepers, the commission states that it does its work quite well when the street is dry and is extensively used in Washington and is well liked there. One objection to it is the difficulty of working it among horses and vehicles on heavily traveled streets.

#### STREET FLUSHING

Flushing or washing pavements with water, while it is not a new method, has not until recently been used in American cities on a large scale or under favorable conditions.

Two ways of flushing are employed; by the use of a nozzle connected by a hose to a fire hydrant, and by wagons similar to the ordinary sprinkling wagon, the water being forced out under air pressure through a nozzle of special design.

The first usually results in a thoroughly clean pavement but at the expense of a large volume of water applied with unnecessarily great force. As the average amount of water from a fire nozzle may be taken at 235 gallons per minute and the area washed at from 4,000 to 10,000 square yards per hour, actually operating four-fifths of the time, the quantity of water used would average about 1.88 gallons per square yard of pavement. Three men are required in an outfit, one to handle the nozzle and the other two to assist in manipulating the hose and to broom spots where the dirt adheres to the pavement with unusual tenacity. Under these conditions the cost of flushing would be as shown in the table on the next page.



FLUSHING STREETS BY HOSE

## COST OF ONE OUTFIT

100 linear feet of 2½-in. hose.....	\$110.00
1 standard plain fire nozzle.....	12.50
6 brooms .....	3.90
	<hr/> \$126.40

The annual charges, with interest at 4 per cent. and repairs and depreciation at 150 per cent., would be \$194.66, or \$.63 per day.

The daily operating expenses with three sweepers at \$2.19 and 90,000 gallons of water at \$90.00 per million would be \$14.67. The total cost per day would therefore be \$15.30. As about 48,000 square yards should be flushed in 8 hours, the cost per 1,000 yards would be \$.319.

"While there are not sufficient experimental data to verify such a conclusion, we believe that equally efficient and nearly as rapid service could be secured through the use of smaller hose equipped with a special nozzle, equivalent in capacity of discharge to a nozzle one inch in diameter, throwing a fan-shaped jet (the long axis of the jet parallel to the surface of the pavement), and the restriction of the pressure at the nozzle to not more than 30 pounds per square inch." The daily cost of washing with such apparatus is estimated at \$.479 for annual charges and \$9.564 for operating expenses, consisting of two sweepers and 57,600 gallons of water. This gives a total of \$10.043 a day, to cover 40,000 square yards, or a cost per 1,000 square yards of \$.251.

## FLUSHING MACHINES

Several of these machines have been in experimental use in New York for some months. They consist of two air-tight compartments, one for water with a capacity of about 600 gallons, and one for air, the two being connected by a passage above the water line. When the water compartment is connected by hose to the fire hydrant, the air is driven from it by the entering water into the air compartment, the relative capacity of the two being so designed that when the water tank is filled, the air in

the air chamber will be compressed to 35 pounds per square inch. In this condition the wagon is used, the water being forced by the air pressure through a nozzle so constructed that a jet or sheet of water impinges upon the pavement at a suitable angle, loosening the dirt and washing it toward the gutter. As in the use of sweeping machines, two machines may work together, one washing from the center half way to the gutter, the other carrying the material to the gutter, at the same time cleaning the remaining portion of the pavement; or one machine may make two trips.

The data collected by the commission differ greatly as to the area which may be cleaned per hour and the quantity of water used. They indicated, however, that such a machine may be expected to clean satisfactorily about 3,500 square yards of pavement per hour and that the water required would be two gallons per square yard flushed. Upon this basis, the following estimate of cost was made:

## COST OF ONE OUTFIT

1 flushing machine.....	\$1,000.00
6 hand brooms.....	3.90
3 shovels .....	2.25
2 horses .....	600.00
2 sets of harness.....	50.00
	<hr/> \$1,656.15

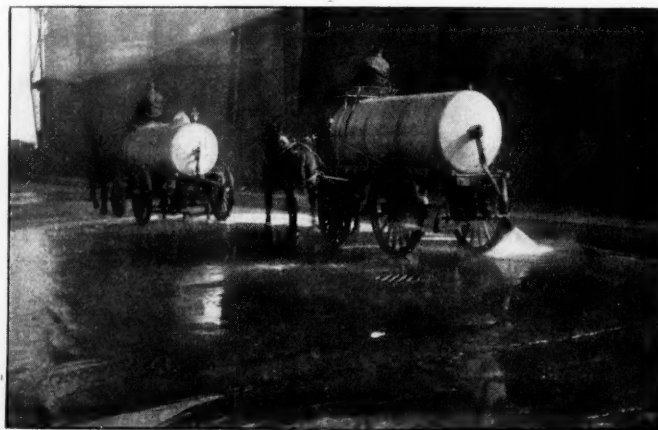
Annual charges at the same rates as in the former cases, \$.982 per day.

## OPERATING EXPENSES

1 driver .....	\$2.19
½ day helper.....	1.09
Maintenance of 2 horses.....	2.70
4 laborers collecting dirt in gutters.....	8.00
Rent, storage of machine.....	.20
Value of water used, 56,000 gal.....	5.04
	<hr/> \$19.22

This gives a total cost per day of \$20.202 which, if 28,000 square yards be cleaned in 8 hours, would make the cost \$.721 per 1,000 yards.

In favor of flushing the commission says that by no other practicable method can the streets be kept equally clean. Where the work is properly done the result leaves little to be desired, as not only the coarser fragments, but the dust in dry weather and the mud in wet weather, are effectually removed. Street sprinkling is unnecessary where flushing is used. If it is conceded that dust and

FLUSHING WAGONS IN NEW YORK  
Mid-roadway Cleaner and Gutter Cleaner



mud are the most objectionable and damaging forms of street dirt, then it must also be conceded that washing is the most effective way so far discovered of cleaning city streets.

It is stated as an objection that the street dirt is flushed into the sewers, which are liable to become obstructed with sediment, and the quantity of detritus carried to the sewer outlets would fill up the docks and channels. The commission learned by observation that in practice this was only partially true; that while in most cities a large percentage of the street dirt is actually carried into the sewers by flushing, more careful work or the use of some form of temporary or portable dams in the gutters just above the sewer inlets would doubtless keep the greater part of the dirt out of the sewers. Moreover, this amount of dirt would be no greater than that washed into the sewers by every hard rain from streets which are not kept quite clean. In a number of cities where street washing is used on a large scale it is reported that no such trouble has been experienced, and in some that the sewers are actually benefited by the periodical flushing.

It is also objected that the quantity of water required is enormous. The commission estimates that the quantity required in New York would be about 2 per cent. of that now used for all purposes. While this addition is comparatively insignificant, there might be occasions when it would for this reason be inadvisable to use this method of street cleaning.

The objection to the use of fire hydrants by the street cleaning department for filling the carts does not seem to be a serious one, since the hydrants are now used for that purpose, except in the more progressive cities, which have special hydrants for the use of the street department.

One of the most frequent objections urged against flushing is its liability to seriously injure street pavements. It is undoubtedly true that in the case of block pavements, the joints of which are filled with loose or imperfectly cemented gravel or other filling, the jets of water do rapidly dislodge the material from these joints. These results depend to a large extent on the pressure at the nozzle and the angle of impingement. The former should not exceed 30 pounds and 20 pounds would probably be ample. The angle of impingement should not exceed 25 degrees. If these conditions are observed there is good reason, backed by some experience, to believe that no injury will result to any reasonably well constructed block pavement, and it is certain that sheet asphalt pavements would not be injured thereby.

The estimates quoted show that the most expensive method is that of flushing by machine; that flushing by hose and machine sweeping almost tie for second place; that hand sweeping or the patrol system comes next; and that the least expensive method would be flushing by small hose and nozzle as suggested by the commission.

In connection with street cleaning, the commission considers that street sprinkling does nothing toward cleaning the street, but simply alleviates the nuisance of uncleaned streets. A street which is paved and kept clean requires no sprinkling, but this can be said of no method of clean-

ing except flushing. As it is usually done, sprinkling converts fine street dust into a slime which renders all smooth pavements dangerously slippery. Moreover, this slime in warm weather is a prolific breeding place for disease germs, it clings to the feet and clothing of pedestrians and, with its accompanying germs, is carried into buildings. The entire cost to New York of such thorough cleaning of its pavements as would render sprinkling them unnecessary should not greatly exceed the amount now paid for sprinkling alone, and the commission believes that such conditions should be realized. In these remarks they, of course, refer only to paved streets and not to macadam, gravel and earth roads, which must be sprinkled or oiled to prevent dust.

#### EFFECT OF CHARACTER OF PAVEMENT

Such information as can be obtained from the records of almost any city may give the cost of sweeping once a given area of pavement, but seldom permits the determination of the cost of keeping *each kind* of paving in an equally clean condition. A single machine sweeping of sheet asphalt will leave it much cleaner than it would a granite block pavement, and the relative prices of bids for the two may offer no correct measure of the cost of keeping them in an equally clean condition. The commission studied carefully a report made by Colonel Waring on this subject in 1896, as practically the only figures available. On the basis of this and the assumption of 100 cleanings per year, it estimated that the annual cost of keeping equally clean a mile of each of the several classes of pavement would exceed the cost of the same area of asphalt by the following amounts:

Wood block, pavement, new.....	\$26.40
Asphalt block pavement, average condition.....	79.20
Brick pavement .....	105.60
Wood block pavement, old (old style).....	132.00
Medina block pavement.....	158.40
Granite block pavement.....	211.20
Belgian block pavement.....	264.00
Cobblestone pavement .....	1,584.00

If these figures are even approximately correct they show that the kind of pavement in use in a city affects very materially the cost of keeping the streets clean; and that the relative cost of cleaning should be considered as an important item in making a choice between different pavements.

The commission believes that where street pavements are in only a fair condition of repair, the cost of cleaning is 20 per cent. or more greater than when they are in good repair; and that when their condition is bad, the cost of cleaning is more than 40 per cent. greater. It would seem as though in many cases it would not cost more to keep the pavements in good repair than the additional sum required for cleaning them—if they are really cleaned.

As a conclusion from the above considerations, the commission decided that only some method of street flushing would give satisfactory results. It refers to results obtained at Cleveland, St. Louis, Kansas City, Cincinnati, Detroit, Buffalo and Toronto as all finding flushing to be successful and satisfactory; also to the growing tendency in European cities to wash and flush their streets. The cost is greater, as shown above, and—a serious consider-

ation for New York at present—the amount of water required would be considerable.

They recommend the combination of hand sweeping for the immediate removal of litter, combined with flushing at night from one to seven times a week. This they estimate would cost about 20 per cent. more than the present system; but it would produce clean streets, which the present method does not. The superintendent of street cleaning is now making arrangements for cleaning the streets by flushing under contract. It is proposed to endeavor to confine the amount of water used to a minimum by requiring that the contractor pay the city by meter measurement for the amount which he uses.

### Water Purification Data

THE information recently collected by us, most of which was presented in tabular form in last week's issue, included also brief statements concerning purification which we give in abstract below. In a number of cases it was not made clear whether rapid or slow sand filtration is employed, and in such cases we have given the words used by our informants. In all districts east of the Rocky Mountains, of the private plants from 30.8 per cent. in New England to 47.4 per cent. in the upper Mississippi-Missouri district purify their supply; while of the municipal plants only from 7.5 per cent. in New England to 31.1 per cent. in the Middle Atlantic district do so. In the Rocky Mountain district 50 per cent. of the municipal plants and 25 per cent. of the private, purify their supplies; and on the Pacific Coast this is done by one of the four municipal and the only private plant reporting. Considering the United States as a whole, 16.8 per cent. of the municipal plants and 39.4 of the private ones operate purification plants. If we exclude sedimentation and all other treatment except slow and rapid filtration, we find these processes applied to 11.9 per cent. of the municipal plants and 28.7 per cent. of the private.

Our table lists about three-fourths of all the municipal plants in places of more than four thousand population. The percentage of private plants reporting is not so high; but if it were but 30 per cent., and none of the others purified their supply, the private plants would make a better showing than the municipal in this respect.

#### NEW ENGLAND—Municipal, 5; Private, 4.

##### *Municipal.*

Augusta, Me. Sedimentation in 6,000,000-gallon reservoir.  
Somerworth, N. H. Sand filtering.  
Burlington, Vt. Mechanical filtering.  
Lawrence, Mass. Slow sand filtration.  
Springfield, Mass. Intermittent filtration, July to November.

##### *Private.*

Biddeford and Saco (Me.) Water Co. Mechanical filtration.  
Mousam Water Co. (Kennebeck, Me., et al.). Sand filtration.  
Southbridge, Mass. Now building sand filter.  
New Haven, Conn. Sand filtration for a part.

#### MIDDLE ATLANTIC—Municipal, 14; Private, 7.

##### *Municipal.*

Binghamton, N. Y. Mechanical filtration.  
Hudson, N. Y. Slow sand filtration.  
Kingston, N. Y. Mechanical pressure filters.  
Middletown, N. Y. Filtration.  
Oneonta, N. Y. Mechanical filtration.  
Owego, N. Y. Pressure sand filters.  
Rome, N. Y. Settling in reservoirs.  
Watertown, N. Y. Mechanical filtration.  
Rahway, N. J. Pressure filters.  
Harrisburg, Pa. Mechanical filtration.  
Media, Pa. Sand filtration.

Philadelphia, Pa. Slow sand filtration.  
Pittsburg, Pa. Slow sand filtration, nearly completed.  
Reading, Pa. Slow sand filtration for 29 per cent. of supply.

##### *Private.*

Moorstown, N. J. Gravity sand filter.  
Paterson, N. J. Mechanical filters.  
Easton, Pa. Sand strainer in river.  
Gettysburg, Pa. Sand filtration.  
Sayre, Pa. Mechanical filtration.  
Sharon, Pa. Sand filtration.  
Susquehanna, Pa. Sand filtration.

#### SOUTH ATLANTIC—Municipal, 3; Private, 2.

##### *Municipal.*

Fredericksburg, Va. Settling basin.  
Greensboro, N. C. Gravity filters.  
Augusta, Ga. Mechanical filtration.

##### *Private.*

Raleigh, N. C. Mechanical filtration.  
Columbus, Ga. Settling tanks and mechanical filtration.

#### OHIO VALLEY—Municipal, 12; Private, 11.

##### *Municipal.*

Cincinnati, O. Mechanical filtration.  
Elyria, O. Sedimentation and mechanical filtration.  
Lebanon, O. Settling cistern.  
Lorain, O. Mechanical sand filter.  
Marietta, O. Mechanical filtration.  
Oberlin, O. Softening.  
Painesville, O. Sand filtration.  
Evansville, Ind. Mechanical filtration in prospect.  
Springfield, Ill. Sand filtration.  
Covington, Ky. Settling basin.  
Newport, Ky. Sedimentation in reservoirs.  
Clarksville, Tenn. Mechanical filtration.

##### *Private.*

Conneaut, O. Gravity filters.  
Warren, O. Mechanical filtration.  
East Chicago, Ind. Settling well.  
Vincennes, Ind. Sedimentation and filtration.  
Alton, Ill. Filtration.  
Freeport, Ill. Mechanical filtration.  
Kankakee, Ill. Mechanical filtration.  
Catlettsburg, Ky. Sedimentation with coagulation.  
Hopkinsville, Ky. Sedimentation, aeration and filtration.  
Lexington, Ky. Mechanical filtration.  
Paris, Ky. Sand filtration.

#### UPPER MISSISSIPPI-MISSOURI—Municipal, 9; Private, 9.

##### *Municipal.*

Cedar Rapids, Ia. Mechanical filtration.  
Osceola, Ia. Mechanical filtration.  
W. Scott, Kan. Sedimentation with coagulation.  
Osawatomie, Kan. Mechanical filtration.  
Kansas City, Mo. Sedimentation with coagulation.  
Keyport, Mo. Gravel filters.  
Kirksville, Mo. Settling basin.  
Richmond, Mo. Filtration.  
St. Louis, Mo. Sedimentation with coagulation.

##### *Private.*

Stevens Point, Wis. Mechanical filtration.  
Burlington, Ia. Settling tanks and mechanical filtration.  
Council Bluffs, Ia. Settling basin.  
Iowa City, Ia. Sand strainer in river.  
Oskaloosa, Ia. Mechanical filtration.  
Argentine, Kan. Sand filtration.  
Parsons, Kan. Gravity filters.  
Cape Girardeau, Mo. Mechanical filtration.  
Nevada, Mo. Aeration.

#### LOWER MISSISSIPPI AND GULF—Municipal, 1; Private, 2.

##### *Municipal.*

Meridian, Miss. Mechanical filtration.

##### *Private.*

Ft. Smith, Ark. Sedimentation.  
Decatur, Ala. Mechanical filtration.

#### ROCKY MOUNTAIN—Municipal, 3; Private, 1.

##### *Municipal.*

Cheyenne, Wyo. Filter galleries.  
Carson City, Colo. Sand filtration.  
Greeley, Colo. Sand filtration.

##### *Private.*

Mercur, Utah. Screens and mud box.

#### PACIFIC COAST—Municipal, 1; Private 1.

##### *Municipal.*

Oregon City, Ore. Mechanical filtration.

##### *Private.*

Napa, Cal. Chemical precipitation.



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## CHANGE OF ADDRESS

To insure the accuracy of our mailing lists, subscribers are requested to notify us of any change of address, giving both the old and new addresses.

It is further requested that our Subscription Department be notified if copies are not received promptly.

Readers are invited to contribute to the MUNICIPAL JOURNAL AND ENGINEER, either in the form of special articles or of letters discussing matters of current interest.

It is also desired that the facilities furnished by the reference library in this office should be widely known and freely used by those interested in municipal affairs. Visitors will be welcomed and provided with conveniences for search, and inquiries by mail will be promptly dealt with.

## REMOVAL NOTICE

The office of the Municipal Journal and Engineer on July 1 will be removed to the Thirty-ninth Street Building, 239 West Thirty-ninth street, New York City.

MAY 13, 1908.

## CONTENTS

City Refuse and Street Cleaning (illustrated).....	599
Water Purification Data.....	604
New Quarters for The Municipal Journal.....	605
Suppressing City Street Dust.....	605
Cameron Septic Tank Patent.....	605
Water Softening Experiment.....	606
Norwalk Municipal Electric Plants.....	606
Williamsport Poles and Pavements.....	606
Concrete Highway Bridges (illustrated).....	607
News of the Municipalities.....	608
Legal News—A Summary and Notes of Recent Decisions.....	613
News of the Societies.....	615
The Week's Contract News.....	616
Patent Claims .....	628
Incorporations .....	628
Trade Notes .....	629
Personals .....	629

## New Quarters for the Municipal Journal

FOR the third time within three years it has been found necessary for MUNICIPAL JOURNAL AND ENGINEER to secure additional space. The new quarters at 239 West Thirty-ninth street, a short distance west of Broadway, which will be the new home after July 1, will afford more than double the space now occupied. The rapid growth in the business of the paper has made these moves necessary, and the new quarters will provide the still greater facilities which present conditions indicate will be required for future growth.

## Suppressing City Street Dust

IN a paper before the American Society of Municipal Improvements in 1906, T. Chalkley Hatton stated that careful investigation in a number of cities showed that, in each of these where accurate figures were obtainable, street sweeping by hand was cheaper than by machine. This statement, although contrary to the general belief at that time, aroused little discussion and received less general notice than might have been expected. In its report abstracted in this issue, the New York refuse and street cleaning commission arrived at the same conclusion with respect to this city; hand sweeping being estimated to cost 28.1 cents per 1,000 square yards, as compared with 31.7 cents by machine sweeping; neither of these including fixed expenses or removal by carts. Hatton's figures were 75.3 by machine, 24.5 by hand and 31.8 by flushing; these being the averages of 13 cities. Even if these figures be accepted, there remains the considerable advantage attached to machine sweeping that cleaning large areas at night is more practicable by it than by hand sweeping.

Perhaps the most interesting part of this report is the recommendation, with reasons therefor, that flushing at night be adopted as the standard method of street cleaning in New York, accompanied by patrol hand sweeping during the day. This, they believe, is the only way in which the fine dirt which is scattered by the wind can be removed from the streets.

In this connection the effect of modern ideas concerning sanitation and disease prevention in various and unanticipated ways is interesting to note. Mosquitoes have ever been recognized nuisances, but any proposition to exterminate them was ridiculed as visionary until their agency in spreading yellow fever, malaria and possibly other diseases was recognized. The chances of their extermination in several states now appear favorable. Dust has long been an almost intolerable but unsuppressed nuisance in our cities; but now that it is recognized as a bearer of tuberculosis germs it seems probable that city life will be largely relieved of the almost universal dust nuisance.

It does not follow, of course, that the recommendations for New York are equally applicable elsewhere. Nor is flushing possible on all the streets of that city. It can be employed only on such pavements as are not disintegrated by water jets, which bars macadam and similar roads.

## Cameron Septic Tank Patent

THE United States Supreme Court last month refused to Saratoga Springs a writ of certiorari applied for in appeal from the recent decision in the suit for infringement of the Cameron patent. No further appeal in this case is possible, and the village apparently must settle with the company. The next step will probably be demands for royalty from many other users of septic tanks; demands which some are expected to resist on the plea that the decision is not sufficiently broad to cover their different conditions. This decision is a decided victory for the Cameron Septic Tank Company.

### Water Softening Experiment

EXPERIMENTS are being conducted on a new water softener designed by A. R. Holmen of the Pennsylvania Railroad, and built by the Southwest system of that road at the shops in Indianapolis. This plant has a capacity of 30,000 gallons per hour and consists of a settling tank or clear well, a mixing drum, a solution tank with lime-slaking tank above, an adjustable solution pump, and a water motor, with the necessary piping. The water motor operates stirring apparatus in the mixing drum and in the solution tank; also the solution pump.

In operation the raw water first passes through and operates the motor, for each revolution of which the solution pump makes one stroke. The length of stroke and strength of the solution, which at Indianapolis contains lime and soda ash, are so adjusted that the necessary amount of chemicals is thus pumped into the raw water. The chemicals meet the raw water as it passes from the motor to the mixing drum and the two are combined by agitation in this drum for about one minute, when they pass from this through a pipe to a bell in the settling tank. Under the lower edge of this bell the water passes into the settling tank, in which it rises and flows off at the top through an overflow pipe to the storage tanks.

The thorough mixing of the water and chemicals under pressure hastens the chemical action so that it is completed before leaving the bell, and also crowds together the precipitant into a more compact form, resulting in a quick and very complete clarification. The sludge is removed by a system of pipes located in the bottom of the settling tank and connected to the waste discharge. Raw water can be admitted by a by-pass directly into the settling tank for stirring up the sludge. Filters have not been used, as it was thought that the settling of the precipitant would be complete, but arrangements have been made for sand filters if their use is thought desirable. This plant has been in operation for eight months with most satisfactory results.

### Norwalk Municipal Electric Plants

On April 10th a contract was entered into between the Board of Electrical Commissioners of South Norwalk, Conn., and the authorities of East Norwalk (an adjoining village) whereby East Norwalk is, for a term of five years, to buy electricity in bulk from the South Norwalk Municipal Electric Works at the rate of 5c per K.W.H. The East Norwalk will be the sixth municipal electric plant in Connecticut, but presenting the unique feature of obtaining its current for both street lighting and commercial service from another municipal plant. The current will be delivered at a sub-station by the South Norwalk plant and from this point will be distributed by the East Norwalk Commission over its own wires to about 150 incandescent street lamps (probably of the Tungsten type) and for commercial service, which will be largely residential with possibly a few motors for small factories.

The sub-station will be the property of East Norwalk

and is to be built at once at the South Norwalk city line. It will probably be of concrete construction and will contain a motor generator which will receive 220-volt direct-current on the motor side and deliver high tension, alternating, 60-cycle, single phase current on the generator side. The building will also contain an office, and 24-hour service will probably be inaugurated shortly.

The South Norwalk municipal plant has for some time been supplying electric power to a local transportation company which handles freight by means of the largest type of electric freight automobile trucks. It is probable that the same plant will, before long, begin supplying current to a street railway company which is about to construct a local line.

The 1907 report—the fifteenth annual report of this plant—which is now in press, shows a remarkable growth in prosperity of the plant. Its business has not been affected by the financial depression, but the factories in the town, which are largely operated by electric power supplied by the city at from 4½ to 2.7 cents net per K.W.H., have throughout the year used an increasing amount of power, until the connected motor load is now over 800 H.P., and additional manufacturers are seeking locations for plants in the city. Manager Winchester explains this by saying that “when times are good people buy our lighting and power because it is reliable, convenient and the best that can be procured. When times are slack they buy it because they must have light and power, and economy obliges them to turn to us because ours are the cheapest they can get. The net rates for lighting (including free lamp renewals) are from 9c to 5.4c per K.W.H. and some citizens have told us that our light costs less than oil lamps.”

To the natural advantages of South Norwalk—its fine harbor, healthy location and beauty; to its transportation service on an excellent railroad which covers the forty-two miles to New York every hour in an hour; and its excellent water supply at the low rate of \$8.00 per year for a residence, are added the inducements of cheap and reliable power and lighting already referred to, as attractions to both manufacturers and residents, which the city's maintained prosperity would indicate are being recognized. The city also has a fine Fire Department with paid drivers; and a combination regulation call box and telephone fire alarm system.

### Williamsport Poles and Pavements

THE annual report of James F. Fisher as City Engineer of Williamsport, Pa., contains an item of information which is interesting, read in connection with our article on “Joint Pole Lines” in a recent number. He reports that there are in that city approximately 3,600 telegraph, electric light and telephone poles, which average one for each 125 feet of every street and alley within the entire city limits. “Is it any wonder,” says he, “that our streets are a forest of peeled wooden poles.”

Another interesting statement in this report is that in the 9.57 miles of paved streets there were made during the last year 45 excavations by plumbers, 8 by the water



company, 22 by the gas company, and 46 by the steam heat company, these totalling 194.5 square yards. As compensation for the damage done to the pavements, these companies paid the city \$3 per square yard of pavement excavated, which is none too much, considering the injury which such excavations do to a permanent pavement. This is much more than many cities receive, and such cash payments are generally preferable to a bond covering maintenance of repaired pavements by the private corporations making the cuts. About one-third of Williamsport's permanent pavements are asphalt and two-thirds brick.

### CONCRETE HIGHWAY BRIDGES

HIGHWAY bridges have only within recent years received the attention from municipal authorities which they merit. For the most part their design and construction have been considered solely from the utilitarian standpoint. Steel, which is the structural material commonly employed, does not readily harmonize with natural surroundings and is a constant source of expense for maintenance. Although wood is now rarely used for bridge members, except in the construction of small bridges, it still serves as a means of flooring with steel frame work, and such flooring is usually noisy and always lacks durability. The objections to both these materials are avoided by concrete construction. Recently steel reinforcement has been commonly used in connection with concrete, but it is then covered and protected from rust and corrosion by the concrete.

The latter material lends itself readily to formation into any shape, while an air of fitness and beauty, in whatever locality it may be placed, is offered by its color, either natural or modified by the sand or gravel aggregate. The roadway may be made continuous over such a bridge, in which case practically no sound is transmitted under moving loads. On the other hand, the first cost is somewhat greater; but when it is considered that there are no maintenance charges and that the bridge increases in strength with age, this additional cost is generally warranted. Furthermore, money expended for gravel, sand, stone, cement, teaming of same, and labor, to a great extent goes into the business of the town or vicinity, while that for labor, steel and other material for a steel bridge is sent out of the community.

One of the causes for the rapid multiplication of steel bridges throughout the country was the fact that the design and construction were, to a certain extent, standardized and it was not necessary for the city or county to prepare designs of its own. While large concrete bridges and those especially adapted to certain conditions require special designs, there are several firms in the country which have already, to a certain extent, standardized the construction of reinforced concrete bridges, and those intended for small spans or ordinary conditions can be obtained as readily as can steel ones. We show herewith illustrations of three different designs constructed by the Aberthaw Construction Company of Boston, Mass., which illustrate standard methods applied to ordinary conditions.

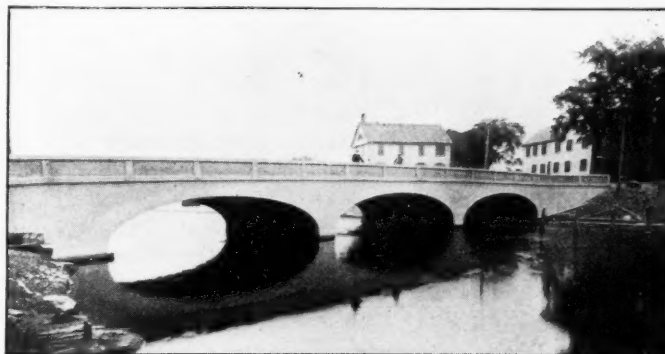
The Williamstown Bridge has a span of 80 feet, with a flat arch, the face being somewhat relieved by a slight



BRIDGE AT WILLIAMSTOWN, MASS.

projection all along the arch and coping, both of which are given a smooth granolithic finish. The approaches are made slightly rising to provide drainage. The hand rail is of ordinary iron construction.

The Pope Memorial Bridge at East Machias consists of three graceful elliptical arches, somewhat similar to



BRIDGE AT EAST MACHIAS, MASS.

Span 40 feet, rise 6 feet 9 inches, total width 27½ feet, cost about \$14,000

that of the Williamstown Bridge. In this case, however, the balustrade is of reinforced concrete as well as the other parts of the bridge. The abutments and arches of this bridge were built by Leonard Metcalf and the entire bridge completed under his direction.



BRIDGE AT SUDBURY, MASS.

The Sudbury Bridge is of concrete beam and flat floor construction and is adapted to short spans and limited head room.

## NEWS OF THE MUNICIPALITIES

Divers Subjects of General Interest and Their Treatment by City Councils and Officials—Streets, Water Works, Lighting and Sanitary Matters—Police and Fire Items—Government and Finance

### ROADS AND PAVEMENTS

#### Concrete Paving at Baltimore

Baltimore, Md.—Concrete paving has been suggested by Harbor Engineer Lackey as a possible alternative for bituminous on North avenue. Mr. Lackey had prepared specifications for Blome concrete pavements on the new docks, but it has been decided to let the lessees lay their own pavements. The Harbor Engineer has recently inspected the concrete pavement on Fourteenth street, Washington, D. C., where, he says, over 8,000 heavy brick carts pass every day. City Engineer Fendall, however, is not at all enthusiastic about the new pavement, preferring the older forms.

#### Would Exclude Domestic Asphalt

Buffalo, N. Y.—Commissioner F. G. Ward, of the Board of Public Works, has asked that all asphalts mined in the United States be eliminated from future specifications. Admitting that there are good streets in the city laid with Kentucky and California asphalts, he objects to leaving the specifications open to all American asphalts, as they would require extensive analysis and expert inspection. The Commissioner says that American asphalt is not, as a rule, mined for paving purposes, and that its oil and some other bitumens are extracted, damaging its qualities.

#### Money Saved by Direct Labor System

Dallas, Tex.—According to the estimate of City Engineer E. Leon Dalton, the city has saved more than \$1,200 on the Main street paving by employing labor directly. The amount of the work was 10,245 yards, the cost \$2.54 per square yard, and the saving a little more than 11 cents per square yard.

#### Revolving Fund with Interesting Features

El Paso, Tex.—Included in an issue of \$500,000 bonds for which the citizens voted recently, is an item of \$200,000 to establish a revolving fund for street paving. Property owners borrowing from this fund may repay the loan in five annual installments. They will be charged eight per cent. interest. As the bonds bear five per cent., there will be a difference of three per cent., which will be used to retire the bond issue or increase its amount. It is expected that the new arrangement will lead to a large amount of paving.

#### City Has Acquired Paving Plant

Fort Worth, Tex.—At a cost of \$1,500 more than originally estimated, the city has acquired its own municipal asphalt paving plant by settling its bill with the Donnard-Lester Company, of Ardmore, Okla. The original purchase price was \$6,500. Later two rock crushers and two heaters, claimed to be worth \$2,880, were added. The compromise, as stated, was made, together with an agreement on the part of the company to furnish material for paving 30,000 square yards.

#### Memphis Will Pave Many Streets

Memphis, Tenn.—As a result of the decision of the Supreme Court that the front foot assessment law is valid, a large amount of paving will be done in Memphis this year. Good progress has already been made with preliminary legislation, as many as thirty ordinances having passed, and the amount of work to be done may amount to \$750,000.

#### Cheap Resurfacing Expected

Pittsburg, Pa.—Grant Boulevard will be closed to traffic for a month while the city forces, under Superintendent John F. O'Toole, surfaces the macadam over with asphalt. There are 35,800 square yards in the roadway which, it is believed,

can be repaved with the appropriation of \$30,000 made for the purpose, an average of 85 cents per square yard. There are a few steep grades which will probably be paved later on with granite.

#### Would Reduce Guaranty to Five Years

Rochester, N. Y.—City Engineer Edwin A. Fisher proposes that the contractors' guaranty be reduced in all cases from ten to five years, promising a corresponding reduction in the cost of pavements. He explains that a dozen years ago he insisted that the guaranty be fixed at ten years. At that time asphalt pavements were new and, in a sense, experimental. The city had no testing laboratory; but to-day all paving material is given a thorough test before it is laid. If there are any serious defects in a pavement, they are bound to show themselves before five years, and the contractor can be called upon under his shorter guaranty to repair them. Seldom is any repair work required between the five and ten-year period, and the large additional cost of a pavement brings little compensating advantages to the taxpayers.

#### Some Paving Problems Stated

Syracuse, N. Y.—Mayor Alan C. Fobes has propounded the following questions to the Aldermen, asking that they be carefully considered and action taken:

At what period in the life of a pavement shall the city as a whole cease to meet the cost of repairs? Shall the city require contractors to guarantee a pavement against repair expense for a period of five years, repair it as a city charge for ten years and then assess repairs upon the abutting property owners as a local assessment thereafter? Or shall the period when the charge shall become a local improvement be determined upon the percentage of repairs a pavement requires after the guarantee has expired? And, too, shall the city meet its annual expense bill for pavement repairs by a general tax upon horses and vehicles, urging at the same time the passage of a bill that will permit the taxation of automobiles?

### SEWERAGE AND SANITATION

#### Important Health Regulation

Boston, Mass.—The following notice has been issued by the Board of Health, of which C. E. Davis, Jr., is Secretary:

Whereas, milk may be and frequently is made the carrier of typhoid fever, diphtheria, scarlet fever and other infectious and contagious diseases, and

Whereas, the germs of said diseases may be imparted to milk by persons in the act of testing by tasting or otherwise handling milk before delivery to consumers, it is therefore ordered:

Whoever tests milk or cream which is to be offered for sale in any form by tasting shall do so by means of a spoon or piece of wood, paper, cardboard or other article, and such spoon, piece of wood, paper, cardboard or other article shall not again be used for testing milk until after being thoroughly washed and sterilized. No person shall permit his hands, fingers, lips or tongue to come in contact with milk intended for sale in any form.

All persons engaged in the "tasting," mixing or handling of milk for sale in any form shall, before engaging in such "tasting," mixing or handling, thoroughly clean their hands and finger nails and keep them clean and dry during such "tasting," mixing or handling.

No person shall permit his hands while wet to remain or pass over any open vessel containing milk intended for sale in any form.

No person shall fill a jar, can or other receptacle with milk while the aforesaid jar, can or other receptacle is held over an open vessel containing milk intended for sale in any form.

No person who has sore throat, diarrhoea or is suffering from any other disturbance of the bowels, or has symptoms of infectious or contagious disease shall engage in the handling of milk which is to be offered for sale or which is for sale.



### Approval of Sewage Plans Desired

Chester, Pa.—A visit of City Engineer Bonsall G. Ladomus, Select Councilman Z. T. Bartleson and City Clerk Frank W. Harrison to the State health authorities at Harrisburg, developed the fact that Chester, in common with other cities and boroughs, will soon have to find other means for its disposal than dumping sewage into rivers and creeks. Mr. Ladomus explained the topography of Chester, which compelled the city to drain its sewers to every point of the compass, and the difficulties experienced with the tides. A formal application for a few more sewers was made. The Health Department will either grant the request or state what method the city ought to pursue to dispose of its sewage.

### City Refuses to Raise Sewerage Rates

Collingwood, N. J.—An ordinance to increase the sewer rates to be paid the Collingwood Sewerage Company was defeated at a meeting attended by many protesting property owners. The company claims that the present rates were made when the sewage was disposed of by gravity and that later the State Board of Health compelled the company to build a disposal plant. The company, it is stated, has never paid any dividends on its stock, nor interest on the money invested. All receipts have been used for the purpose of paying operating expenses, taxes, repairs and necessary improvements, and the receipts now are barely sufficient to pay operating expenses, taxes and repairs. In the meantime, the municipality has progressed more rapidly than any other municipality in this vicinity, owing largely to the fact, it is claimed, that prospective residents were told of the efficient sewerage system, which guarantees security against diseases due to defective sewerage. At the Council meeting the financial statements of the company were questioned and the general sentiment seemed to be that there was no good reason for changing a price made by contract.

### Data for Plumbers

Dayton, O.—In order that plumbers may have necessary data without visiting the City Engineer's office to secure information, a general map of all the sanitary sewers of Dayton is being compiled for general distribution. The plans will not only show every sanitary sewer and its location in the streets with reference to the curb, but also the depth at which they are laid. Complaint has been made that on account of the absence of records which are readily accessible plumbers have been handicapped in bidding for work.

### Special Inspection of Refilling Trenches

Duluth, Minn.—Because of many complaints about the settling of trenches, the Board of Public Works will, this spring, add to the working force of the Department by the appointment of a man whose duty it will be to keep watch of all sewer work being done in the city, to see that the trenches are properly refilled. The inspection of refilling work on water and gas trenches will still be left to the City Engineering Department and the Board of Water and Light Commissioners.

### Passaic Purification Plans Discussed

Paterson, N. J.—Methods of sewage disposal were discussed at a conference arranged by Mayor McBride, in which city officials, members of the Taxpayers' Association and of the old special municipal committee on sewage disposal, editors of local papers, prominent citizens, and invited guests participated. No definite conclusions were reached, but the fact was made evident that the pollution of the Passaic must cease March 26, 1911, and that Paterson had 90 days in which to decide whether to join in the trunk sewer scheme or build a disposal plant of its own. It seems that the trunk sewer plan is cheaper provided no disposal plant will be necessary at its outlet in New York bay. It is the fear that the plant may be necessary, however, that makes Paterson citizens think that the more expensive local disposal plant may be cheaper in the end.

### Typhoid Fever Investigation in Pittsburg

Pittsburg, Pa.—Mayor George W. Guthrie has appointed five commissioners to investigate the cause of typhoid fever in Pittsburg. The fund to carry on the work, which is expected to take two years, has been secured from the Russell Sage foundation. An advisory board of 15 will also be named, but there will be no remuneration except to the members of the commission and the corps of assistants named by them to carry on the work. The fund amounts to \$10,000 a year.

### Extra Cost of Sewer Without Outlet

Salt Lake City, Utah.—On account of the building of an intercepting trunk sewer without first providing an outlet, the city has a dispute on its hands, involving nearly \$10,000, which represents the cost, or rather a part, Contractor James Kennedy says, of pumping out water which accumulated during the construction of the work. The general opinion seems to be that, if the claim is not paid, an appeal to the courts would result in the awarding of much higher damages.

### WATER WORKS

#### Big Water Loan Approved by Council

Baltimore, Md.—An ordinance has been introduced in the City Council authorizing the new \$5,000,000 water loan, which, however, will have to be submitted to popular approval at the election next November. As pointed out by Water Engineer Quick, the present water facilities for Baltimore threaten famine in the summer. Frequently it is necessary to turn muddy water into the mains, owing to depletion of the reservoirs.

#### Suburb May Build Water Works for Greater City

Birmingham, Ala.—North Birmingham, a suburb drawing its residents from many of the smaller manufacturing plants grouped about the big iron and steel industries of the district, has voted a \$5,000,000 bond issue for the erection and installation of a municipal water plant for Greater Birmingham. North Birmingham proposes, while still a separate corporation, to have this plant in operation, turning it over to Greater Birmingham when, in accordance with an election of recent date, all the cities of the present immediate district are united into one big corporation. Municipal ownership of water works has already been tried upon a small scale by North Birmingham and has been fairly successful. The plant contemplated in the election, however, is calculated to supply a city of half a million people.

#### May Buy Water Plant

Des Moines, Ia.—The Commissioners under the new form of government have taken a step toward cheaper water for consumers. An ordinance has passed two readings compelling the water company to make a detailed statement of earnings and expenses. The first report is to be made on June 1. A tax was levied a few years ago and \$10,000 was collected for the purchase of the local water plant. This amount since has laid in the banks. Under the law it can be used for no other purpose. A movement may be made to further increase this sum so as to buy the plant.

#### Water Works Issue Hotly Contested

Keedysville, Md.—The municipal election at Keedysville, May 2, was the most hotly contested in the history of the town. The old officials had all been renominated and were candidates for election on a platform pledging to submit to a vote of the people of the town the question of installing a system of water works. Almost at the last moment the following opposition ticket was nominated and elected: Burgess, D. D. Keedy; assistant burgess, H. G. Snyder; commissioners, A. V. Davis, J. A. Grossnickle, Bruce S. Seller. The defeated ticket was: Burgess, D. D. Keedy; assistant burgess, D. H. Snively; commissioners, Grant Wyand, C. B. Taylor, O. B. Wyand. The successful candidates are opposed to the establishment of a water works system. The election was characterized by much bitterness on the part of the advocates of the respective candidates.

#### Supply of Purer Water Approved

Belvidere, N. J.—The State Water Supply Commission has decided to grant the application of the Buckhorn Water Company for permission to supply Belvidere with water from springs. The application was approved by the Belvidere Water Company, which supplies that town from the Delaware river. At the hearing, Professor Alvin Davidson, who occupies the chair of biology at Lafayette College, testified that of the eleven persons who recently suffered from typhoid fever in Belvidere, ten at least, in his opinion, contracted the disease from drinking Delaware river water. Analysis of the water at the intake in November showed the presence of sewage germs.

#### STREET LIGHTING AND ELECTRIC POWER

##### Electrical Subways to Be Extended

Baltimore, Md.—An ordinance has been introduced in the City Council to submit to vote next November the question of the issue of \$1,000,000 bonds for additional municipal subways. According to Chief Engineer Phelps of the Subway Commission, the conduits will be a losing proposition for the city until the Commission is able to finish the trunk lines and lay the branch channels. Without these additions, many of the present conduits must lie idle until proper connections can be made.

##### Electric Lights to Replace Gasoline

Somerville, Ky.—The 741 gasoline lights now doing service in Portland, California, Germantown, Smoketown, the "point" and in the southern section of the city are to be put out of commission not later than May 20 and there will be substituted for them ninety electric lights. The change from gasoline to electric lights will result in an annual saving to the city of \$1,950, according to the Board of Public Works.

##### A Difference in Securities

Newburgh, N. Y.—After having refused an application of the Newburgh Light, Heat and Power Company to issue \$250,000 preferred stock bearing 8 per cent. interest, the Public Service Commission has authorized an issue of \$330,000 8 per cent. bonds, payable in ten years. The first application was denied because the Commission disapproved of such a charge for interest in perpetuity, as being practically a tax on the community. The short-term bonds, which meet this objection, may be converted into common stock after two years, if the holders so desire.

##### Electric Generator Bursts

Niagara Falls, N. Y.—The great 10,000-horsepower generator in Power House No. 3 of the Niagara Falls Hydraulic Power and Manufacturing Company, which had been undergoing a test at 400 revolutions per minute preparatory to being placed in commission, burst, April 28, injuring three men and doing considerable damage. The generator weighed 75 tons and was one of the largest built for the company.

#### FIRE AND POLICE

##### Seventy-seven Policemen Appointed

Boston, Mass.—The largest number of appointments at one time to the Boston police force was announced April 30, 77 men being added to the Department. The appointments were made as the result of an examination held last January by the Civil Service Commission on account of the operation of the one day off in 15 law.

##### Annual Parade of the Finest

New York, N. Y.—Five thousand men under command of Inspector Cortwright marched in the annual parade of the New York police May 9. At Fifth avenue and Twenty-fourth street they were reviewed by Mayor McClellan and Police Commissioner Bingham. Never before were the general appearance of the men, the marching and the discipline so highly commended. A novel feature was the introduction of the squad of fire police dogs. An automobile patrol and eleven motor bicycles marked new tendencies in the equipment of a metropolitan force. As usual, medals for distinguished bravery were awarded.

#### Additional Duties of Police

Harrisburg, Pa.—By the general order issued by Chief of Police George the new regulation regarding the posting of half of the detail over the entire city—each patrolman covering two districts—for the first hour and a half with the swing turn of an additional hour and a half in the morning—from 4:30 o'clock until 6—went into effect May 1.

#### Firemen Testing Hose

Niagara Falls, N. Y.—Following the annual spring custom, the Fire Department is making a test of the hose now in use. About 9,500 feet of hose will be overhauled and put to the test of a 200 pound pressure. Leaky hose will be laid aside and its condition reported upon officially.

#### To Cover Beat on Motorcycle

Providence, R. I.—The first policeman ever assigned to motorcycle duty was recently put on and assigned to duty in the Sixth or Olneyville Precinct. The policeman selected was a resident of the annexed district and is well known in that community.

#### Whiskers Ordered Off Police

Reading, Pa.—The new police administration of this city has decided against whiskers, and especially side whiskers. Officers are to be allowed to retain their mustaches, and those who have very handsome imperials can get special permits for them, but there is no appeal for side whiskers.

#### Firemen Sign Contract for Pension Fund

Scranton, Pa.—The agreement of the firemen to permit one per cent. of their salaries to be devoted to the relief fund expired recently, and all the men in the department have been notified to appear at the controller's office in the city hall to sign new agreements.

#### Motorcycle Police to be Put in Khaki

Toledo, O.—Toledo motorcycle policemen will be put into khaki for summer costume and will have much the appearance of Uncle Sam's mounted forces. Toledo has reason to be proud of her motor cops, as they are familiarly called, for they have well-nigh revolutionized the manners of motorists in that city. Speed law violators now realize that there is something more than moral suasion in reserve for them.

#### GOVERNMENT AND FINANCE

##### Commission Government Favored for Chelsea

Chelsea, Mass.—At a hearing on the bill for a Municipal Commission whose members are to be appointed by the Governor, to govern the city of Chelsea for a period of five years, nearly all citizens, including Mayor Beck and representatives of civic bodies, expressed themselves in favor of the measure. Some opposition was expressed by Aldermen who thought it meant taxation without representation. The argument of the majority was that the present Mayor and Board of Aldermen have not the power to do things that are necessary in the present emergency.

##### Comptroller to Scan Bills Closely

Milwaukee, Wis.—City Comptroller August M. Gawin and his deputy, Joseph M. Crowley, are determined not to countersign any bill unless they are personally satisfied that the amount charged is reasonable. The two officials have already experienced several clashes with other departments on this account, but both declare they will not deviate from the course taken. Mr. Crowley has refused to sign bills for shingles furnished the city at \$4.50, while the market price is only \$3.75, and he has also refused to allow a bill for a rubber stamp which Deputy Treasurer Drew has ordered for his office.

##### Mrs. Russell Sage Would Restore City Hall

New York, N. Y.—Mrs. Russell Sage visited the City Hall partly to inspect the Governor's room which has been restored to its original condition at her expense under the



direction of the Municipal Art Commission, and partly with the idea of undertaking the work of restoring the whole building. The hall is regarded as the best representation of architecture of the Colonial period. The original plans have been secured from the Historical Society and turned over to McKim, Mead & White, who will have charge of the restoration if Mrs. Sage's offer is accepted.

#### **Municipal Legislation in New York**

Albany, N. Y.—The following bills were passed during the last days of the Legislature: Assembly 129, granting municipal lighting plants authority to extend their systems into new territory without additional authority from voters if such extension does not cost more than \$500 a year. Senate 960, authorizing the city of Oswego to provide for the construction of subways and conduits. Assembly 496, providing that certain financial statements be made to the State Board of Taxation by corporations owning franchises. Assembly 553, requiring that all telephone, electric light and power poles within a village be marked by the owner of the pole and attached wires. Assembly 1,420, relative to gas and electricity in the city of Syracuse.

#### **Ohio Municipal Code Bill Passed**

Columbus, O.—The Municipal Code bill, which has passed the Legislature, when it becomes a law, will abolish elective administrative boards in cities, such as the Boards of Public Service and Public Safety, which will be supplanted by a single Director of those departments, to be appointed by the Mayor, thus centralizing authority and responsibility in the executive elected by the people. It will also provide for a Board of Control, to consist of the Mayor and the heads of the two principal departments appointed by him. This board will take the place of the present Public Service Board. Its members will have the right to attend meetings of Council and take part in the discussion of affairs connected with their departments, but they will have no vote. The power of removal from office will be vested in the Mayor, so that the heads of departments appointed by him will serve only at his pleasure. A Civil Service Department will be created consisting of three members to be appointed by the President of the Council, the Board of Education and the Sinking Fund Commissioners. This board will certify to the appointing power the names of persons for appointment to minor offices who have proven their eligibility by examination before the board. No employee may be discharged or reduced in rank without cause, charges must be made in writing, and every employee will be entitled to a hearing before the Civil Service Commission. By an amendment to the bill, Councils are authorized to issue bonds in small denominations and dispose of them at private sale, preference being given to the bidders on small amounts rather than to firms engaged in the bond selling business.

#### **Town Without Income from Saloons**

Hooperstown, Ill.—That a town of 6,000 may exist and prosper without the income from saloons is demonstrated by the experience of Hooperstown. The town has fifteen miles of paved streets and as many of concrete walks, a large city building, fine school buildings, first-class water works and a new library. Property owners are not taxed any higher than a neighboring town that generally had eight saloons. City officials work for normal salaries, the Mayor receiving 50 cents and the Aldermen 25 cents a year.

#### **Better Care of City Records and Property**

Tacoma, Wash.—The new Council Finance Committee has decided that a fireproof vault and a burglar-proof safe are urgent requirements of the City Treasurer's office and will recommend their purchase. A better accounting system in every department for keeping track of city property is also advised.

### **REFUSE COLLECTION AND DISPOSAL**

#### **Railways Refuse to Sprinkle Tracks**

Dayton, O.—The City Railways companies have formally refused to lay the dust on their respective rights of way until the city carries out certain provisions of the contract which they claim the city made with them. The companies claim that they contributed a sum of money towards the construction of a bridge and that in return they were to be given free water for sprinkling their tracks. The city authorities claim that the State law prohibits the giving away of water, and that, accordingly, they cannot carry out the provisions.

#### **Annual City Cleaning Inaugurated**

Franklin, N. H.—At the special session of the City Council it was decided to inaugurate an annual city cleaning day, on which occasion the city highway teams will go through the streets and collect the refuse which householders may rake up around their yards in the spring. Mayor Nevins was authorized to appoint the cleaning day and it is planned to give citizens due notice when a date has been selected.

#### **Must Install Hydrants for Sprinkling Cars**

New Bedford, Mass.—City Engineer Williams says that in order to operate sprinkling cars it will be necessary to have special hydrants constructed on the streets. Each car carries a load of about 2,500 gallons of water, and this load will cover a mile of surface, the exact distance depending on whether the surface is macadam or paving. In operation in other cities, the car tanks require from one to two minutes to fill. It was estimated that 14 hydrants would be required, and a rough estimate of the cost of these hydrants, made by Robert C. P. Coggeshall, Superintendent of Water Works, was \$2,000.

#### **Clean-Up-Day Only a Preliminary Event**

Pueblo, Col.—On "Clean-Up-Day," proclaimed by Mayor John T. West, the Aldermen of each ward assumed charge of the work there. Citizens were informed that the cleaning day was not to be a spasmodic effort on the part of the city to make itself attractive, but was the preliminary to the summer's campaign against untidiness and unsanitary conditions. Property owners who do not keep their yards and alleys in order will be given an opportunity to explain to the Health Department.

### **PARKS AND OUTDOOR ART**

#### **More Streets Should Be Parked**

Lynn, Mass.—In the annual report of the Board of Public Works, recommendations are made that more of the city streets be parked and that a separate appropriation be made for the expert care of shade trees. The parking of streets is advised because the appearance is greatly improved, and, at the same time, the cost of maintenance is greatly reduced. The necessity of cutting down many of the fine old trees during the past year moved the Board to recommend that the city provide expert care for shade trees in order that the life of the existing trees may be prolonged and that new ones may be planted in suitable places.

#### **To Preserve Rock Creek Valley**

Washington, D. C.—The recommendations of Major Jay J. Morrow, the Engineer Commissioner, that the Commissioners approve the park plan for the treatment of lower Rock creek advances this matter another stage and emphasizes the importance of hastening to a conclusion. For years there have been two contending views of the problem. One plan is to arch the creek and fill the valley to grade, transforming it into a plain. The other is to check the process of filling which has been in progress for decades, and by a skillful treatment of the banks preserve the natural beauties of the valley as far as possible and add the stream and its immediate surroundings to the city's park system. Major Morrow favors the latter method and urges that it be adopted.

### Key Monument Formally Accepted

Baltimore, Md.—Mayor J. Barry Mahool has signed the ordinance accepting, in the name of the city, from Charles L. Marburg, a monument to Francis Scott Key, author of "The Star-Spangled Banner," which Mr. Marburg will erect at the intersection of Eutaw place and Lanvale street. The monument will cost about \$25,000 and will be of beautiful design. At the base it will measure across the diameter 33 feet, and about the base will be an 18-foot circular driveway. The site selected is one of the highest points in the city, the elevation being 172.1 feet from sea level.

### Trees to Be Set Out

Cortland, N. Y.—The work of laying out the new city park in the center of the Randall flats will be started soon. The work this year will probably be confined to the planting of a large number of shade trees on the six-acre plot, which was donated to the city by Miss Wilhemina Randall, a sister of the late Randolph Randall. Mayor Maxon has turned over to the Board of Public Works the deed of the property and Commissioners C. F. Wickwire and Hugh Duffey have been appointed as a committee in charge of the park, which will be known as Randall Park.

### Municipal Traction Company Averts Strike

Cleveland, O.—The Municipal Traction Company, which began operations with free rides to everybody and a general holiday, soon found itself in difficulties, which, however, thanks to the general confidence felt in Mayor Tom L. Johnson, are in a fair way towards settlement. There were two unions of street car employees each composed of employees of one or the other railroad. The union containing the old Cleveland Electric Company's men claimed to have a contract that entitled them to claim an increase of two cents an hour in their wages. The question of the validity of this agreement has been referred to arbitrators. Besides, there was an attempt on the part of the men of the 5-cent union to put the other men at the bottom of the priority list. This matter has been adjusted, the rights of men of both unions protected, and all danger of a strike averted.

### Chicago Passenger Subway

Chicago, Ill.—A special message from Mayor Fred A. Busse urging prompt action on the proposed subway for passenger cars is being considered by the City Council and rough outlines of a plan have been formed. It is the intention to copy the system in use in Boston, rather than that of New York. The subways will be used by both surface and elevated cars in the congested district. The present lines will be relieved, not abolished. The subways will be near the surface of the streets, above the freight subways, and may contain galleries for conduits and pipes.

### Capital Invested in Pennsylvania Electric Lines

Harrisburg, Pa.—There is almost \$500,000,000 represented in the capital of the electric railways of Pennsylvania, according to the annual report of the State Bureau of Railways, which has just been completed by Chief James W. Craig. Incidentally there is shown a heavy increase in 1907 covered in the report, not only in capital, but in assets. The total capital amounts to \$464,553,942, divided between \$240,224,061, the capitalization and current liabilities of companies engaged in direct operation and \$224,329,881 reported by companies which have leased their lines and equipment. The capital and liabilities of the former show an increase of \$36,570,620. Other increases follow, all figures being comparative and taken from reports made directly to the bureau: Capital and liabilities, \$56,570,620; assets, \$57,348,978; income, \$3,558,260; disbursements, \$3,968,397; passengers carried, 87,935,058; employees, 3,396; wages, \$2,098,537. More than 300 miles of new track were laid than in the previous year and the increase in cars was 690.

### Improving Passenger Traffic Conditions

Philadelphia, Pa.—In view of the approaching completion of the Market street subway, which it is hoped to have in full operation in September, the officials of the Rapid Transit Company are developing plans for the more expeditious handling of the public. Eighty cars are now undergoing alterations, the middle seats being removed and side doors put in. Many of the eight-wheel closed cars, of which there are 750, will be converted into the "pay-as-you-enter" type. The surplus of cars which will result from the use of the subway will, it is believed, be sufficient to provide seats for all passengers, and the company will have the assurance that all fares will be collected. It is figured that the company loses \$500,000 annually in lost fares due to overcrowding. The company expects to show a surplus at the end of the fiscal year, as against a deficit last year.

### Street Car Regulations

Portland, Ore.—Dashboard signs, which were removed from the street cars recently, will be replaced, in accordance with the request of City Council. President Josselyn, in explaining the matter, says that the objects of removing the signs were sentimental, the desire being to remove Portland out of the Arcadian class of railroading. The other change in regulations made at the same time, that of stopping cars for passengers on the near side of street intersections, is a purely practical one, designed to avert accidents, and it will be adhered to. In Los Angeles accidents were reduced by 50 per cent. by stopping cars on the near crossings.

### MISCELLANEOUS

#### Boston Abolishes Publicity Bureau

Boston, Mass.—Mayor Hibbard has decided to abolish the Publicity Bureau. He announced his decision after an interview with Manager Thomas F. Anderson of the Bureau, in which he learned that the business men throughout the city who guaranteed to contribute \$5,000 towards its maintenance had subscribed but \$200. He declared that the Bureau was an expensive luxury, especially for an economical administration.

#### Cornerstone of City Hall Laid

Chattanooga, Tenn.—The cornerstone of Chattanooga's new \$200,000 City Hall was laid recently with elaborate ceremony. A parade in which were all the living ex-Mayors of the city as well as the present city officials, traversed the principal streets, and a number of addresses were delivered and the cornerstone was laid by Mayor W. R. Crabtree.

#### House-to-House Canvassers Must Have License

Cohoes, N. Y.—An ordinance has been adopted making it necessary for all retail dealers who have not a place of business established in Cohoes and who make a house-to-house canvass in that city to take out a license, the fee to be \$25.

#### Charter Amendments Favoring Hospital Approved

Lockport, N. Y.—The City Council has approved three amendments framed by the Legislature. One of these authorizes the city to issue bonds for \$5,000 to pay its share towards the new hospital, the balance having been raised by subscription. The second bill authorizes the city to include \$5,000 in the budget every year to pay for maintenance of the hospital. The third bill amends the garbage collection act by increasing the fund from \$3,000 to \$4,500.

#### Says Ordinance Is Too Strict

Sacramento, Cal.—Mayor Clinton L. White thinks the ordinance passed by the Council prohibiting the emission of black smoke from chimneys is too strict. He says that the chimney of the water works smokes as well as the locomotives in the switching yards. In fact, wherever oil is used as a fuel there is smoke at times. The benefits derived by the city from the use of California oil as a fuel are so great that while the Mayor is willing to do anything he can to minimize the nuisance he will not do anything tending to decrease the use of oil. He will accordingly veto the ordinance or ask to have it modified.



## LEGAL NEWS

### A Summary and Notes of Recent Decisions—Rulings of Municipal Interest

#### CIVIL SERVICE—NOTICE

**People ex rel. O'Hara vs. Neville et al.**—The Civil Service regulations of cities governing promotions, etc., in the Police Department, have the force of statutes, and are subject to the same rules of construction. Civil Service rule 7 requires the Civil Service Commission to give all persons whose applications are on record five days' notice to appear for examination. Rule 28, subdivision 5, requires the Commissioner to direct a competitive examination under the provisions of this rule, and to publish the same by notice to those eligible, giving the time, etc., of the examination, and subdivision 7 thereof provides that the examination shall be subject to the general provisions of rule 13, etc., subdivision 6 of which requires notice of an examination for making a new eligible list to be given to those whose names remain on the former eligible list which has expired. Held, that five days' notice required by rule 7 was applicable to examinations for promotions by virtue of the reference in rule 28 to rule 13, but, even if rule 7 was not applicable, rule 28, subdivision 5, required that applicants be given at least reasonable notice of examination, and, construing the rule in the light of the previous practice of the local and State Commission under similar rules, where relator was given notice by 7 p. m. on one day to appear for examination at 7 p. m. the next day, he being on duty from 6 p. m., on the day of receiving the notice to 5 p. m. the next day, was not a reasonable notice, and relator was entitled to have another opportunity for examination.—New York Supreme Court.

#### LIQUOR LICENSE—REVOCATION

**Claussen vs. City of Luverne.**—Neither the State, nor any of the subdivisions through which it operates, is liable for torts committed by public officers, save in definitely excepted classes of cases. The exception is based upon the sovereign character of the State and its agencies, and upon the absence of obligation, and not on the ground that no remedy has been provided. Municipal corporations will not be held liable in damages for the manner in which they exercise in good faith their discretionary powers of a public, or legislative, or quasi judicial character. A license to sell liquor is granted in pursuance of the police power, and not of the taxing power, of the State. Its primary purpose is not revenue, but regulation. It is subject to revocation. A municipality is not liable in tort for mistaken action of the City Council in attempting to revoke a license to sell intoxicating liquors.—Supreme Court of Minnesota.

#### PAVEMENT IN CAR TRACKS

**Warren Bros. Co., vs. Taylor, City Treasurer.**—A city has the right, under the express provisions of General Laws of 1896, to do all paving and make repairs to its highways as it sees fit; and hence, where a city lets a contract for paving all of a street except 8 inches outside and 4 inches inside the street railway tracks, it is not rendered ultra vires by General Laws 1896, providing that a street railroad shall pave that portion of the street occupied by its tracks and 18 inches outside of its rails. A city is not relieved of its liability to keep its highways safe and convenient for public travel by reason of General Laws 1896, and an ordinance of the city of Newport, requiring a street railway company to repair, and to keep and maintain in repair, streets or certain parts thereof occupied by it.—Supreme Court of Rhode Island.

#### IMPROVEMENT ASSESSMENTS—CONSTRUCTION

**City of Chicago vs. Becker.**—Where a law governing the confirmation of judgment for assessments for local improvements has received a certain construction by the practice obtaining in a city, such construction will not change the requirements of the statute or the construction which should be placed thereon by the courts; the law being a general one, applicable to all cities, towns and villages in the State.—Supreme Court of Illinois.

#### STREET WIDENING PROCEDURE

**Hawkins vs. City of Pittsburg.**—Where a city proposes to widen a street it must comply with Act of March 19, 1903, authorizing a city, in a manner therein provided for, to open, widen or extend streets or alleys, and an ordinance purporting to relocate an established alley, but having in fact the effect of widening the same, is invalid.—Supreme Court of Pennsylvania.

#### RIVER POLLUTION

**Doremus et al. vs. City of Paterson.**—In a suit by riparian owners against a city to enjoin the city from polluting the water of a river, unless compensation was made, evidence examined, and held to show that the city had not acquired a prescriptive right to pollute the stream. A city is not responsible for so much of the street wash as goes into a stream from the surface of the streets, though more will in time of rain, on account of the paved surfaces preventing absorption by the soil, pass into the stream, but it is responsible for so much of the street wash as it by artificial means diverts into sewers emptying into the stream, for it then disposes of the matter thus diverted as it disposes of household slops and the contents of closets. A city sued by riparian owners for damages for polluting a stream by emptying its sewage into it is not entitled to deduct a sum representing such injury as would have been inflicted by the city had it been without sewers, especially where it has not and cannot produce any evidence from which it will be possible to estimate such an allowance. A harmful pollution of a water course is quite a different thing from "pollution" which consists merely in the presence even in considerable quantities of minerals held in suspension, or of minerals produced by chemical reactions, whose specific gravity causes them to sink quickly to the bottom. Where, in a suit against a city to restrain it from polluting a river by emptying its sewage into it, unless it made compensation to the riparian owners for the diminution in value of their lands and property rights, the city answered by alleging that it elected to make such compensation to the riparian owners for the alleged diminution in value of their lands and property rights as should be ascertained to be just, and that the injury or taking was temporary, and was to continue no longer than a specified period, and the evidence showed that some years prior to the suit the waters of the stream had become sensibly and injuriously polluted, the compensation should not be computed as of the time of the filing of the bill, but should be awarded as of the time of the original taking.

The act of a city in building sewers emptying into a stream and in discharging sewage into the stream as authorized by statute was not an invasion of the rights of riparian owners until the city began to pour into the stream more sewage than the stream could take care of, resulting in injury to the riparian owners. Where, in a suit against a city to restrain it from polluting the waters of a stream by discharging its sewage into it unless it made compensation to the riparian owners, the answer alleged that the injury was temporary, no allowance could be made for alleged depreciation in the value of the lands of the riparian owners, nor for personal discomfort by the occupants thereof, and the measure of damages was the diminished annual value of the land.—Court of Chancery of New Jersey.

#### IMPROVEMENT ASSESSMENT—STREET RAILWAYS

**City of Maysville vs. Maysville Street Railway and Transfer Co.**—Kentucky statutes, 1903, providing that the original construction of any street, etc., may be at the exclusive cost of the owners of "the lots and parts of lots or land" abutting on the street improved, etc., when corrected by substituting the word "of" for the word "or" in the quoted clause, and when considered in connection with the history of the legislation as shown in Section 3564, providing that the construction of any street may be made at the cost of owners of lots in each fourth of a square apportioned according to the number of square feet, and as amended by Acts of March 24, 1894, constituting Section 3572, does not authorize a municipality to assess for a street improvement a street car franchise to operate a line of road in the center of the street improved.—Court of Appeals of Kentucky.

#### ACCEPTANCE OF STREET—EVIDENCE

**Spencer vs. Town of Arlington et al.**—Making repairs and improvements, and inviting the public to travel thereon, may be considered as evidence of the adoption of a highway by a municipality, and it may be thereby estopped to deny that the way is a public one and under its control.—Supreme Court of Washington.

#### LIQUOR LICENSES

**Town of Houma vs. Houma Lighting & Ice Mfg Co., Limited.**—Under Act No. 171, wholesale and retail businesses are dealt with as distinct from each other, and are required to be licensed separately, and the provisions of the act upon that subject are as applicable to the liquor business as to any other and as applicable to municipal corporations as to the State. Hence a municipal ordinance imposing one license upon the liquor business, wholesale and retail, is unauthorized and illegal.—Supreme Court of Louisiana.



### EXTENSION OF LIGHTING FRANCHISE

**Wakefield et al. vs. Village of Theresa.**—Where a contract between a village and individual, granting to him the privilege of using the streets in connection with the operation of a lighting plant, contemplated the extension of the franchise beyond the period specified in the contract, unless the village elected to purchase the appliances, and the contractor and his successors continued to use the franchise from year to year and improved the plant, all of which was done with the acquiescence of the village authorities, but without a formal renewal of the contract, as therein provided, the village could not make the omission to renew the contract a ground for impeaching its validity, or claim that the contractor's successors were in the streets unlawfully.—New York Supreme Court, Appellate Division.

### CHANGE OF GRADE NEGLIGENTLY DONE

**Jones vs. Town of Henderson.**—A municipal corporation having authority to grade streets, including sidewalks, is liable to an abutting landowner for any damages resulting from doing the work in a negligent and unskillful manner, the duty of the corporation being ministerial, though damages resulting from the leaving of a lot too high or too low because of street grading are not recoverable where the work is properly done.—Supreme Court of North Carolina.

### CHANGE OF STREET GRADE

**City of Owensboro vs. Hope.**—A lot owner is not entitled to recover from a city for consequential damages to a lot adjacent to a street because of the original grading of the street when not done negligently, the street having been previously dedicated or acquired by the city for that purpose, since, where a street is dedicated or acquired by condemnation, it is implied that it may be graded so far as necessary to fit it for a highway, and it will be presumed that the inconvenience of the owner of adjacent property and the injury to such property from the grading were compensated for at the time of acquiring the right of way, either by the dedicatory or by the jury in awarding compensation under a writ ad quod damnum.—Court of Appeals of Kentucky.

### ORDINANCE REGULATING DRUMMERS

**Burrow vs. City of Hot Springs.**—Under Kirby's Digest, giving municipal corporations authority to pass ordinances not inconsistent with the state laws, for carrying into effect the provisions of the general municipal law and for the purpose of prohibiting and punishing anything which the state laws make a misdemeanor, together with authority to prescribe penalties for all violations of such ordinances not exceeding the penalties prescribed for similar offenses against the state laws, a City Council may pass an ordinance making it a misdemeanor for a physician to employ a "drummer" for the purpose of procuring patients, and providing a penalty of from \$25 to \$200 for its violation, since the Gantt law makes the same conduct a misdemeanor and provides the same penalty.—Supreme Court of Arkansas.

### PAUPERS—LIABILITY OF TOWNS

**Town of Morristown vs. Town of Hardwick.**—There is no common-law liability of a town to care for paupers, nor are there any equities between towns in that respect, but the whole matter is purely statutory. A statute must not be extended by implication beyond what is necessary to accomplish its purpose; and hence a statute for the relief and support of paupers, providing that every town shall relieve needy poor persons residing or found therein, and that if a person is poor and in need of relief, the overseer of the poor upon application shall give relief, and if the person has not gained a residence in the town, and is not of sufficient ability to provide such assistance, the town furnishing it may recover the expense from the town of the person's residence, cannot be extended to render one town liable to another town for the expense of burying one of the other's paupers.—Supreme Court of Vermont.

### CARE REQUIRED OF TRAVELER

**Robertson vs. City of Waukon.**—A traveler on a sidewalk is not required to critically inspect it before using it; all that is required of him being that he make use of his senses and exercise such caution as persons of prudence ordinarily do under like circumstances.—Supreme Court of Iowa.

### CHANGE IN ALLEY

**Schmolt et al. vs. Nagel et al.**—Though the authority of the Common Council of the city of Detroit, as to alleys therein, is not absolute, a contemplated change in an alley will not be enjoined where, as a means of ingress and egress, the alley as changed will furnish the same service as before.—Supreme Court of Michigan.

### REGULATION OF SKY SIGNS

**City of New York vs. M. Wineburgh Advertising Co.**—A permit to erect a sky sign nine feet high is not authority to erect one twenty-five feet high, and the erection thereunder of such a sign is, in legal effect, without a permit, and subject to penalties imposed by a city ordinance for erecting and maintaining such a structure without obtaining a permit. Where a defendant is liable for two penalties, he cannot complain because judgment is rendered for only one.—New York Supreme Court, Appellate Division.

### EIGHT-HOUR DAY—PRINTERS

**People ex rel. Hausauer-Jones Printing Co. vs. Zimmerman, Comptroller.**—Laws 1897, providing that eight hours shall constitute a legal day's work on public work, etc., and declaring that the act shall not prevent an agreement for overwork at an increased compensation, except upon work by or for the state or a municipal corporation, etc., is confined to work done for the state and municipal corporations, and if construed to limit the right of a person to sell his services for other work, where he has also engaged on public works, is unconstitutional, and a contractor furnishing the public printing for a municipal corporation may permit his employees to work overtime on jobs taken from private customers and in no way connected with the public work.—New York Supreme Court, Special Term, Erie County.

### PROCEEDINGS TO INCORPORATE VILLAGE

**In re Clark et al.**—Sanborn's Supplementary Statutes, 1906, provides that any question of the validity of village incorporation, whether tested by certiorari or other action or proceeding, may be brought "at any time within three months after such incorporation, but not thereafter." Held, that proceedings by petition for the vacation of an order of incorporation were governed by this statute, and, not having been commenced within such time, the petition was properly dismissed.—Supreme Court of Wisconsin.

### STREET RAILWAY FRANCHISE

**Eastern Wisconsin Ry. & Light Co. et al. vs. Hackett.**—A street railway company contracted to haul over its tracks on a city bridge the cars of an interurban railway company during the life of the franchise of the street railway company. The interurban company possessed, under Laws 1905, the power to acquire by condemnation the right to run its cars over any city bridge on the rails of any other company. Held, that a resolution of the city operating to take away the rights of the street railway company in the contract, or to compensation in condemnation proceedings if instituted by the interurban company, was unreasonable, irrespective of the question whether it was the purpose of the city to aid the interurban company at the expense of the street railway company.—Supreme Court of Wisconsin.

### RESPONSIBILITY FOR MAINTAINING STREETS

**Goodrich vs. City of University Place et al.**—A city of the second class or village has the exclusive control of its streets, and ample means are placed under the control of its constituted authorities to maintain the streets in a safe condition. Under these circumstances, it is liable for its failure to perform its duty.—Supreme Court of Nebraska.

### FRANCHISE ORDINANCE—AMENDMENT

**City of Chicago vs. Cobe.**—Under Chicago city charter, providing that an ordinance must be agreed to by the concurrence of a majority of all the members of a City Council elect, and that the yeas and nays must be taken, and a rule that a city ordinance can only be amended or repealed by an act of equal dignity and formality, and not by a mere resolution, a contract between a street railway company and the Mayor acting on the city's behalf, by which the railway company agreed to pay the city \$50,000 to induce the Mayor to sign a franchise ordinance, which contract was informally accepted by the City Council and ordered filed, was ineffective as an amendment of the ordinance.—United States Circuit Court.

### MUNICIPAL ORDINANCES—VALIDITY

**Ex parte Yung.**—Courts will not look into the motives of a legislative body in the exercise of its legislative powers, except in extraordinary cases where public policy imperatively demands it on the ground of palpable fraud. An ordinance need not indicate the power in execution of which it is adopted. An ordinance need not set out the reason for its enactment, unless required to do so by statute or the Constitution. A misrecital in an ordinance of the source of power to enact it does not affect the validity if the power exists.—Court of Appeals, Second District, California.

## NEWS OF THE SOCIETIES

**Connecticut Police Association.**—The annual convention will be held in Bridgeport this year, on July 1, instead of in New Haven, as in former years. The date and place were selected at a meeting of the executive committee of the association in the office of Police Chief Henry C. Cowles, of New Haven, who is President of the organization. Among the other matters attended to was the question of allowing damages to various policemen for injuries received while on duty. Three of these claims were allowed, one from New Haven, one from Hartford and one from Waterbury. The officers of the association are: Chief Henry D. Cowles of New Haven, President; Captain Landrigan of Meriden, Secretary, and Chief Rollins of New Britain, Treasurer.

**New Jersey Mayors' League.**—According to Mayor H. Otto Wittpen of Jersey City, every Mayor of first and second class cities in New Jersey has agreed to join the proposed Mayors' League and make it a power in the State. It has been decided to admit the chief law officer and chief financial officer of each city to membership. Among the subjects to be discussed at a future conference are pure water, franchises and their terms, charter revision, municipal libraries and street paving and cleaning.

**National Fire Protection Association.**—The Fire Inspection Bureau of the Association, in addition to its factory inspection service, has inaugurated a system of field examinations, through its own inspectors. Coils are now frequently purchased from jobbers throughout the country and subjected to rigid voltage and insulation tests. Careful examinations are also made on these coils, as to the quality of the compound and the character and weatherproofing of the braid. The service at present is limited to national electrical code wires, and all coils conforming to this standard bear the stamp of the bureau. The following is a list of manufacturers taking the service: American Electrical Works; American Steel & Wire Co.; Atlantic Insulated Wire & Cable Co.; Bishop Gutta Percha Co.; Boston Insulated Wire & Cable Co.; Bourn Rubber Co.; W. R. Bixey, Collyer Insulated Wire Co.; Consumers' Rubber Co.; Crescent Insulated Wire & Cable Co.; Detroit Insulated Wire Co.; General Electric Co.; Habirshow Wire Co.; Hazard Manufacturing Co.; Home Rubber, Indiana Rubber & Insulated Wire Co.; National Insulated Wire & Rubber Co.; Alfred F. Moore; National India Rubber Co.; New York Insulated Wire Co.; Phillips Insulated Wire Co.; John A. Roebblings, Sons & Co.; Safety Insulated Wire & Cable Co.; Simplex Electrical Co.; Standard Underground Cable Co.; Waterbury Co.

**Technical Publicity Association.**—At the annual meeting of the association, April 30, the following officers were elected:

President, C. S. Redfield, Advertising Manager Yale & Towne Manufacturing Company, New York City; First Vice-President, Rodman Gilder, Publicity Manager, Crocker-Wheeler Company, Amper, N. J.; Second Vice-President, C. N. Manfred, Manager Advertising Department, H. W. Johns-Manville Company, New York City; Secretary, H. H. Kress, Publicity Department, A. S. Cameron Steam Pump Works, New York City; Treasurer, H. M. Davis, Advertising Manager, Sprague Electric Company, New York City. Members of Executive Committee: F. H. Gale, Charge of Advertising, General Electric Company, Schenectady, N. Y., and C. W. Beaver, Special Representative, Yale & Towne Manufacturing Company, New York City.

**International Association of Fire En-**

**gineers.**—The following technical papers and topics for discussion have been announced for the annual convention, Columbus, O., August 25-28:

"A Closer Co-operation Between Fire Departments and Local Boards of Fire Underwriters," Fillmore Tyson, Chief Fire Department, Louisville, Ky.

"A Model Metropolitan Non-Partisan Law for the Government of Fire Department," J. R. Canterbury, Chief Fire Department, Minneapolis, Minn.

"Noted Fires Illustrated," Captain Greeley S. Curtis, New York.

"The Handling of High-Pressure Fire Streams," B. J. McConnell, Chief Fire Department, Buffalo, N. Y.

"The Modern Fireproof School Building," Thomas K. Harding, Chief Fire Department, Bay City, Mich.

"Why Fire Chiefs Should Attend Our Annual Meetings," H. F. Magee, Chief Fire Department, Dallas, Tex.

"The Proper Distribution of Fire Alarm Boxes and the Best Method of Educating the People to the Effective Use of Same," J. J. McMahon, Chief Fire Department, Erie, Pa.

"The Proper Handling and Storage of Gasoline in Dry-Cleaning Establishments and Automobile Garages," J. A. Archibald, Chief Fire Department, Cincinnati, O.

"The Reorganization of Fire Departments from Volunteer to Paid and the Best Methods to Pursue in Reorganizing the Same," Fred Morrison, Chief Fire Department, Watertown, N. Y.

"Fire Apparatus Propelled and Operated by Either Gasoline or Electricity," contributions on subject solicited from manufacturers.

The following topics are open for discussion:

"How Much Salvage Work Should Be Done by the Fire Department in Cities Where There Is No Regular Salvage Corps Maintained?"

"Transportation of Fire Apparatus in Event of Sending Aid to Other Places," "Is It Best to Have the Pressure from the Hydrant on Suction of Piston-Engines, or Should the Suction Be Taken with Absolute Lift? If Pressure Is Necessary, What Should the Pressure Be?"

"By Whom Should Inspection of Fire Escapes Be Made—by Fire Department or Building Inspectors?" "The Importance of Moral and Physical Training to Members of Fire Departments."

"Legislation That Will Empower Chiefs of Fire Departments to Force the Equipping of Public Buildings with Necessary Fire Escapes and Other Appliances for the Protection of Life in Time of Fire and Panic."

"Beneficial Laws and Remedial Legislation." "The Practicability of Uniting Fire-Alarm Telegraph Systems of Fire Departments Where Cities Have Been Annexed."

The President, Secretary and Directors of the association will stop at the Southern Hotel, while other hostellers are to make special arrangements for delegates and visitors.

**American Street and Interurban Railway Association.**—Gen. Oliver, Acting Secretary of War, has approved an application by Otto Luebker, Chairman of the Committee on Conventions of the Washington Board of Trade, Washington, D. C., for permission to use the train shed and platforms of the old railroad station building, corner of Sixth and B streets, for the purpose of holding the convention and exhibit of the American Street and Interurban Railway Association and the American Street and Interurban Manufacturers' Association for approximately twelve days, beginning October 1 next. The application was approved on the recommendation of Gen. Mackenzie, Chief of Engineers, and on condition that the association be responsible for the safety of the buildings and contents during occupancy and for the repair of all damage.

**International Congress on Tuberculosis.**—To add incentive to the International Congress on Tuberculosis to be held in Washington, D. C., from September 21 to October 12, the Smithsonian Institution has offered a prize of \$1,500 for the best paper on "The Relation of Atmospheric Air to Tuberculosis." The committee selected to pass on the merits of the papers is headed by Dr. William H. Walsh, Johns Hopkins University.

**Civil Engineers' Club of Cleveland, O.**—The annual register for the year 1908 announces the amalgamation of the Electric Club with the Civil Engineers' Club. The rooms of the Club are 718 Caxton Building and open every day, except Sunday, from 11:30 a. m. to 10 p. m. Regular meetings are held on the second Tuesday of each month at 8 p. m.

## Calendar of Meetings

May 11-16.

**American Water Works Association.**—Twenty-eighth annual convention, Washington, D. C.—J. M. Diven, Secretary, 14 George street, Charleston, S. C.

May 14-16.

**New York State City Clerks' Association.**—First convention, Schenectady, N. Y. Frank L. Fonda, City Clerk, Schenectady, N. Y.

May 19-22.

**National Electric Light Association.**—Annual meeting, Chicago, Ill.—W. W. Freeman, Secretary, Engineering Societies Building, 29 West Thirty-ninth street, New York City.

May 20.

**American Society of Civil Engineers.**—Regular meeting at the House of the Society, 220 West Fifty-seventh street, New York City.—Charles Warren Hunt, Secretary.

May 26-28.

**National Fire Protection Association.**—Annual meeting, Chicago, Ill.—W. H. Merrill, Jr., Secretary, 382 Ohio street, Chicago, Ill.

June 2-7.

**International Association of Chiefs of Police.**—Fifteenth annual convention, Detroit, Mich.—Major Richard Sylvester, President, Washington, D. C.

June 17.

**North West Ohio Volunteer Firemen's Association.**—Thirty-fifth annual convention, Napoleon, Ohio.—J. H. Polher, Secretary.

June 23-26.

**American Society of Civil Engineers.**—Annual convention, Denver, Col.—Charles Warren Hunt, Secretary, 220 West Fifty-seventh street, New York City.

June 23-26.

**American Society of Mechanical Engineers.**—Annual convention, Detroit, Mich.—C. W. Rice, Secretary, 29 West 39th street, New York City.

June 23-26.

**Society for the Promotion of Engineering Education.**—(In connection with the convention of the American Society of Mechanical Engineers). Convention, Detroit, Mich.—A. L. Williston, Pratt Institute, Brooklyn, N. Y.

June 23-27.

**American Society for Testing Materials.**—Annual meeting, Hotel Traymore, Atlantic City, N. J.—Edgar Marburg, Secretary, University of Pennsylvania, Philadelphia, Pa.

June 24-25.

**Indiana State Board of Health.**—General Conference, Indianapolis, Ind. Dr. J. N. Hurty, Secretary.

June 29-July 2.

**American Institute of Electrical Engineers.**—Annual convention, Atlantic City, N. J.—Ralph W. Pope, Secretary, 33 West Thirty-ninth street, New York City.

July 24-25.

**American Society of Heating and Ventilating Engineers.**—Summer meeting, Niagara Falls, N. Y.—W. M. Mackay, Secretary, P. O. Box 1818, New York City.

August 25-28.

**International Association of Fire Engineers.**—Annual convention, Columbus, O.—James McFall, Secretary, Roanoke, Va.

September.

**New Jersey State Firemen's Association.**—Annual meeting, Atlantic City, N. J.—William Exall, Secretary, 11 Howard street, Newark, N. J.

September 21-October 12.

**National Association for the Study and Prevention of Tuberculosis.**—International Congress, Washington, D. C.—Dr. Henry Barton Jacobs, Secretary, Baltimore, Md.—Dr. Joseph Walsh, Philadelphia, Pa. Special Secretary of the Committee on the International Congress.

October 11.

**International Roads Congress.**—First convention, Paris, France.—President Lethier, l'Inspecteur General des Ponts et Chaussees.

October 20-23.

**American Society of Municipal Improvements.**—Fifteenth annual convention, Hotel Dennis, Atlantic City, N. J.—A. Prescott Folwell, Secretary, 511 Flatiron Building, New York City.



## THE WEEK'S CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

To be of value this matter must be printed in the number immediately following its receipt, which makes it impossible for us to verify it all. Our sources of information are believed to be reliable, but we can not guarantee the correctness of all items. Parties in charge of proposed work are requested to send us information concerning it as early as possible; also corrections of any errors discovered.

## BIDS ASKED FOR

STATE	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
<b>Street Improvements</b>				
Illinois	Chicago	May 14, 10:30 A.M.	Paving contracts; 8 with asphalt; 4 with slag; 11, vit. brick; 2, granite block; 1, limestone; grading, etc.	Chas. A. V. Standish, Sec'y B. L. I.
Missouri	Kansas City	May 14, 11 A.M.	Constructing asphalt pavement, parts 6 streets; artificial stone walks, 15 streets, and curbs, 12 streets.	E. A. Harper, City Engineer.
Ohio	Cincinnati	May 14, noon	Paving, grading, etc., various streets.	John J. Wenner, Clk., B. P. S.
Ohio	Toledo	May 14, noon	Improvement of various streets.	Reynold Voit, Sec'y B. P. S.
Ohio	Cleveland	May 14, noon	Bldg. concrete walks and stone balustrade, Wash. Pk. viad.	W. J. Springborn, Pres. B. P. S.
Dist. of Col.	Washington	May 14, 2 P.M.	Furn. for fiscal yr., begin. July 1: granite curbs, asphalt paving block, vit. paving block; Portland cement, castings, sewer pipe, etc.	Jay J. Morrow, Eng. Com'r.
Wisconsin	Fond du Lac	May 14, 3 P.M.	Paving certain streets with brick; 11,000 sq. yds.	J. F. Hohensee, Clk., Bd. Pub. Wks.
Kansas	Lawrence	May 14, 5 P.M.	Paving Vt. St.; 600 cu. yds. earth exc.; 2,000 sq. yds. brick paving, Henry St.; 1,800 yds. exc.; 4,000 yds. brick pave; 2,000 ft. curb.	F. D. Brooks, City Clerk.
New Hampshire	Concord	May 14, 5 P.M.	Grading and surfacing native stone, 4,000 ft. main road, Chester; grading and gravel 2,000 ft. in Newton.	A. W. Dean, State Engineer.
Wisconsin	Madison	May 14	Improving certain streets with macadam.	John F. Icke, City Engineer.
Indiana	Fort Wayne	May 14	Asphalt paving, Taylor Ave., 20,158 sq. yds.; cost, \$49,150.	J. F. Mungoran, City Clerk.
Ohio	Cincinnati	May 15, noon	Wood block paving on concrete, 11,700 sq. yds. etc.; cost, \$81,434; brick paving, etc., cost, \$11,121.	John J. Wenner, Clk. Bd. Pub. Serv.
Washington	Olympia	May 15, 2 P.M.	Grading and graveling 6 State aid roads.	Jos. M. Snow, Sec'y St. Hwy. Bd.
New York	New York	May 15, 2 P.M.	Grading, curbing, paving etc., various streets.	J. F. Ahearn, Pres. Boro. Manhattan.
Ontario	Petrolia	May 15, 6 P.M.	Laying 6,000 sq. yds. vit. brick with cement curb on Main St.	J. McHattie, Town Clerk.
Michigan	Charlotte	May 15	Paving certain streets; cost, \$18,000.	City Clerk.
Wisconsin	Dodgeville	May 15	Labor and material, 30,000 sq. ft. cement walk.	J. P. Lewis, Clk. Bd. Pub. Wks.
Virginia	The Plains	May 15	Constructing 8 miles macadam road, to Middleburgh.	A. R. Bartenstein, Clk. Co. Road Bd.
Wisconsin	Racine	May 16, 10 A.M.	Brick paving, 27,703 sq. yds.; stone curb; reset, 11,300 lin. ft.	P. H. Connolly, City Engineer.
Indiana	Indianapolis	May 16, 10 A.M.	Bldg. Wm. D. Spray joint-free gravel road.	C. F. Cromwell, County Auditor.
Indiana	Frankfort	May 16, 10 A.M.	Constructing 5,360 ft. gravel road, bet. Boone & Clinton Cos.	Charles F. Cromwell, Co. Auditor.
Ohio	New Lexington	May 16, noon	Labor and material for paving; cost, \$75,000.	Charles A. Beard, City Clerk.
South Dakota	Ashton	May 16, 1 P.M.	Grading 8 miles in Jefferson township.	O. B. Olsen, Clk., Town Bd., Jeff.
Pennsylvania	Washington	May 16	Piking 2 1/2 miles broken limestone roads, 1,425 cu. yds.	Road Supervisors, Donegal Twp.
New York	Hilton	May 16	Furn. and placing 1,400 yds. crushed stone and 470 yds. screenings.	Morton L. Nellis, Town Clerk.
Minnesota	St. Paul	May 18, 10 A.M.	Constructing seven county roads.	Edw. G. Krahmer, Co. Auditor.
Connecticut	New Haven	May 18, 10 A.M.	Paving 7 streets with crushed stone.	C. W. Kelly, City Engineer.
Ohio	Cincinnati	May 18, noon	Brick paving, Renner St.	John J. Wenner, Clk. Bd. Pub. Serv.
Ohio	Youngstown	May 18, noon	Labor and material for paving Wick Ave.	W. H. McMillin, Clk. Bd. Pub. Serv.
New Jersey	New Brunswick	May 18	Paving 20,000 sq. yds., Throop Ave., with brick.	Fred. C. Schneider, City Eng'r.
Indiana	Muncie	May 19, 2 P.M.	Furn. material, grading, brick paving, 17,865 sq. yds., W. and E. Main and Liberty Sts.	John O. Potter, City Engineer.
New York	Hornell	May 19, 3 P.M.	Grading curb, vit. brick or block on concrete, Pleasant St. and portions Genesee, E. and N. Main Sts.; 13,160 yds. paving; 7,660 ft. curb.	Frederic Leach, Supt. Pub. Wks.
Maryland	Salisbury	May 19, 8 P.M.	Grading, paving and draining N. Division St.	T. Chalkley Hatton, C. E. Wilm., Del.
New York	Brooklyn	May 20, 11 A.M.	Paving, grading, cement walks, etc., various streets.	Bird S. Coler, Boro. President.
Wisconsin	La Crosse	May 20, 2 P.M.	Paving with brick 2 streets and one alley.	H. J. Beckwith, Chm. Bd. Pub. Wks.
Pennsylvania	Huntingdon	May 20	Constructing 11,675 ft. State road on Oneida township.	State Hwy. Dept., Harrisburg.
Ohio	Coshocton	May 21	Material and labor for paving Chestnut St.	R. M. Kemple, Clk. Bd. Pub. Serv.
Pennsylvania	Harrisburg	May 21	Bldg. State roads; 1,550 ft.; 11,320 ft.; 12,640 ft. long.	Jos. W. Hunter, State Hwy. Com'r.
Ohio	Mt. Gilead	May 21	Constructing Nickles stone and gravel road, Washington tp.	W. C. McFarland, Co. Auditor.
Tennessee	Knoxville	May 22	Five miles of street paving.	S. D. Newton, City Engineer.
Ohio	Celina	May 23, 10 A.M.	Macadamizing, grading, etc., 9 miles road.	L. L. Marsh, Engineer.
Wisconsin	Racine	May 23	Brick paving, 70,000 sq. yds.; stone curb, 12,000 lin. ft., etc.	P. H. Connolly, Bd. Pub. Wks.
Ohio	Berea	May 25, noon	Brick or block paving, grading, curbing, etc., Front St.	O. R. Stone, Village Clerk.
Pennsylvania	Smethport	May 25	Paving between 13,000 and 18,000 sq. yds.	W. G. Holder, Boro. Secretary.
Pennsylvania	Erie	May 25	Paving 7th St., from Cherry to Plum St.	B. E. Briggs, City Engineer.
New Jersey	Elizabeth	May 26, 2:30 P.M.	Constructing macadam roads throughout Union Co.	Jacob L. Bauer, County Eng'r.
Mississippi	Gulfport	May 26, 8 P.M.	Constructing, complete, 14,000 sq. yds. paving; 15,000 lin. ft. concrete curb and gutter; 15,000 lin. ft. granite curb.	M. F. Sullivan, City Engineer.
Pennsylvania	Williamsport	May 26	Bldg. State roads; 10,890; 20,200; 5,000 and 12,000 ft. long.	State Hwy. Dept., Harrisburg.
Pennsylvania	Bedford	May 27	Bldg. State road, 17,000 ft., also 14,700 ft. long.	Jos. W. Hunter, Hwy. Com'r, Harsbg.
Pennsylvania	Norristown	May 27	Bldg 2 State roads, 8,400 and 7,700 ft. long, U. Hanover twp.	Jos. W. Hunter, Hwy. Com'r, Harsbg.
Pennsylvania	Clarion	May 28	Constructing 7,112 ft. State road, Washington twp.	Jos. W. Hunter, Hwy. Com'r, Harsbg.
Ohio	Mt. Gilead	May 28	Bldg. Denmark stone and gravel road, 6 miles long.	W. C. McFarland, Co. Auditor.
Ohio	Portsmouth	May 28	Constructing county road.	F. N. Tynes, County Auditor.
Iowa	Le Mars	May 28	Constructing sidewalks on certain streets.	V. D. Hoffman, City Clerk.
Ohio	Westerville	May 29, noon	Grading and paving 3 streets, brick or other sub material.	Elsworth Horlocker, Vil. Clk.
Ohio	Cleveland	May 29	Laying cement sidewalks in certain streets.	A. R. Callow, Sec'y Bd. Pub. Serv.
Ohio	Col'bus Barracks	June 1, 10 A.M.	Bldg. brick road crossings, art. stone pavements, curb, etc.	Capt. H. J. Hirsch, Q.M., U.S. Army.
Massachusetts	Ft. Andrews	June 1, 11 A.M.	Macadam roads, concrete walks, grading, etc.	Capt. I. L. Fredenhall, Q.M., U.S.A.
New York	Fort Slocum	June 1, 11 A.M.	Constructing roads, sidewalks, gutters, drains, etc.	Constr. Q. M., U. S. Army.
New Jersey	New Brunswick	June 1	Grading and paving 2 streets and 2 avenues.	Street and Road Committee.
Pennsylvania	Doylestown	June 1	Bldg. 4 State roads; 4,200; 10,335; 14,680; 1,660 ft. long.	Jos. W. Hunter, Hwy. Com'r, Harsbg.
New Jersey	Newark	June 8, 3 P.M.	Grading and telford macadam paving, several roads, inc. 14,934 ft.; also one 11,162 ft. long.	James Owen, 196 Market St., C. E.
Indiana	Crawfordsville	June 8	Paving 5 blocks on College, Water and Walnut Sts.	B. R. Johnston, City Engineer.
<b>Water Supply</b>				
New York	New York	May 13, 2 P.M.	Furn. 6-in. inside screw-gate valves and 32-tons hydrant gate valve boxes and covers; laying 30-in. force main, etc., in Queens Boro; relaying 12 and 20-in. mains through bridge in Bronx.	John H. O'Brien, Com'r W. S. G. & E.
Illinois	Chicago	May 14	Furn. ten 8-ft. sluice gates; eight 6-in. valves; eight 6-in. strainers at gate shafts on Blue Island Av. tunnel.	John J. Hanberg, Com'r Pub. Wks.
Louisiana	Ft. St. Philip	May 15, 10 A.M.	Constructing water and sewer system at Fort.	Capt. Arthur Cranston, U. S. Army.
Colorado	Canon City	May 15	New water supply systems; cost, \$250,000.	P. O'Brien, Civil Engineer.
Nebraska	Hildreth	May 15	Constructing water works, to cost \$10,000.	M. A. Earl & Co., Muskogee, Okla.
Iowa	Atlantic	May 15	Rebldg. mun. water and light plant.	J. L. Darnell, Nelson Bldg., K.C., Mo.
Oklahoma	Guthrie	May 15	Constructing complete water works, filtration plant.	W. K. Palmer, Co., K.C., Mo., Eng'rs



## Water Supply—Continued.

Illinois.....	Trenton.....	May 16.....	Furn. material and install. w.w., inc. 4, 6 and 8-in. pipe lines; concrete reservoir; pump, etc., valves, etc.	W. A. Fuller, St. Louis, Mo., C. E. Paul R. Murray, C. E., N. Phila.
Ohio.....	Malta.....	May 16.....	Constructing pipe system for water works.	
Ontario.....	Guelph.....	May 18, noon.....	High-duty pumping engine, 2½ or 3 million gal.; steel or rein. concrete water tower, 30 ft. diam., 100 ft. high and concrete foundation; 3,000 ft., 12-in. c. i. pipe, etc.	J. J. Hackney, Mgr. Water Works.
Mexico.....	Monterey, N. L.....	May 18, noon.....	Lining and roofing 2 rein. concrete service reservoirs, each 10,000,000 gals. cap.; inlet and outlet chambers, valve houses, etc.; materials to be supplied by company.	Monterey W. W. & Sewer Co., Ltd.
Iowa.....	Council Bluffs.....	May 18, 4 P.M.....	Constructing water works plant, embracing power plant complete, settling reservoirs, distributing system and high-pressure reservoir, S. L. Etnyre, City Engineer.	W. F. Sapp, City Clerk.
Ohio.....	Dayton.....	May 18.....	Furn. 20 tons 4-in.; 100 tons, 8-in.; 200 tons, 6-in.; 100 tons, 10-in.; 50 tons, 12-in. c. i. pipe; 20 tons specials; 10 tons ref. pig lead.	W. A. Budove, Clk. Bd. Pub. Serv.
Ohio.....	Columbus.....	May 18.....	Furn. 600 tons 6 and 8-in. c. i. pipe; 20 tons 6 and 8-in. specials; 15,000 ft. ¾-in. galv. iron pipe; 2,000 stop boxes.	E. W. Hirsch, Sec'y Bd. Pub. Serv.
Maine.....	Augusta.....	May 19, noon.....	Water supply system, complete, for State Muster Field.	A. B. Farnham, Adj. Gen.
Kentucky.....	Louisville.....	May 19.....	Laying water mains.	Secretary, Water Co.
Colorado.....	Canon City.....	May 20, 8 P.M.....	Furn. material and laying 8 miles 26 or 30-in. conduit of steel or continuous wood stave pipe; settling basin; filter; 2 clear-reservoirs, etc., for water works system.	L. S. Dawson, City Clerk.
Montana.....	Ft. Assiniboine.....	May 21, 11 A.M.....	Constructing 150,000 gal. steel tank and tower.	J. E. Sawyer, U. S. Army, St. Paul, Minn.
New Mexico.....	Roswell.....	May 22, 2 P.M.....	Furn. 2,100 tons c. i. pipe and specials, 4 to 16-in. or 20 miles Converse Lock Joint steel pipe; hydrants and valves; 2,000,000 high-duty Corliss pumping engine and dir.-act. pump, etc.; 2 18' x 66" hor. ret. tub. boilers; also furn. all material and labor, except above, and constructing complete water works system.	Burns & McDonnell, K. C., Mo., Eng.
Texas.....	Alta Loma.....	May 28, noon.....	Furn. and erecting, complete mach. equipment of air-lift pumping station, inc. 1,200 and 700 cu. ft. air compressors; 200 h.p. water tube boiler, etc., inc. 16,615 ft. air pipe to wells.	J. D. Kelley, City Sec'y, Galveston.
Mississippi.....	Columbus.....	May 30.....	Plans, etc., for bldg. 50,000-gal. steel tank on 100-ft. steel tower.	H. L. Whiteford, Pres. Indus. Inst.
Virginia.....	Fort Monroe.....	June 1, 10 A.M.....	Erecting four 50,000-gal. steel tanks on parapet.	E. R. Tilton, Q. M., U. S. Army.
North Carolina.....	Shelby.....	June 1.....	Constructing water works.	H. E. Knox, Engineer.
North Dakota.....	Grand Forks.....	June 1.....	Laying water mains on several streets.	W. V. O'Connor, City Clerk.
Illinois.....	Grafton.....	June 1.....	Constructing \$22,000 water works and electric light plant.	W. S. Merkel, St. Louis, Mo., C. E.
New York.....	New York.....	June 2, 11 A.M.....	Constructing Rondout siphon, a deep-pressure tunnel lined with concrete, 14½ ft. inside diam.; 23,360 ft. long.	Board of Water Supply.
Ohio.....	Cincinnati.....	June 2.....	Furnishing, etc., c. i. pipe, etc.	Aug. Herrmann, Pres. Water Bd.
Missouri.....	Neosho.....	June 6, 2 P.M.....	Constructing reservoir and pipe system, U. S. Fish Sta.	Com'r of Fisheries, Wash., D. C.

## Sewerage

Dist. of Col'bia.....	Washington.....	May 14, 2 P.M.....	Furnishing terra cotta pipe, castings, etc.	Jay J. Morrow, Eng'r Com'r.
Louisiana.....	Ft. St. Philip.....	May 15, 10 A.M.....	Constructing sewer and water system at post.	Capt. Arthur Cranston, U. S. Army
Maine.....	Foxcroft.....	May 15, noon.....	Exc., laying, etc., 3,000 ft. 12-15-in. pipe, furn. by town.	A. J. McNaughton, Chm. Selectmen.
Pennsylvania.....	Huntingdon.....	May 15, 2 P.M.....	Constructing sewers, inc. 5,000 ft. 5-in.; 6,600 ft., 10-in.; 900 ft., 12-in.; 2,400 ft., 15-in.; 860 ft., 18-in.; 1,420 ft., 20-in.; 2,000 ft., 22-in.; 33 manholes, 11 lantern holes, etc.	J. Murray Africa, Boro. Eng'r.
Dist. of Col'bia.....	Washington.....	May 18, 10 30 A.M.....	Furnishing vit. sewer pipe, etc., Isthmian Canal Com'n.	Col. H. F. Hodges, Gen. Pur. Age.
Ohio.....	Cincinnati.....	May 18, noon.....	Constructing sewers, etc., in Tafel St.	John J. Wenner, Clk., B. P. S.
Ohio.....	Youngstown.....	May 18, noon.....	Constructing sewer in Grace Ave., from Hillman St. to city lim.	W. H. McMillin, Clk., B. P. S.
Ohio.....	Steubenville.....	May 18, noon.....	Constructing pipe sewer on Rose St.	H. G. Simpson, Clk. Bd. Pub. Serv.
Indiana.....	W. Lafayette.....	May 18, 7:30 P.M.....	Constructing sewers in several streets.	C. P. Stellard, Town Clerk.
Missouri.....	Cape Girardeau.....	May 18, 7:30 P.M.....	Bldg. complete sewer system for Sewer Dist. No. 1.	C. C. Hawley, City Engineer.
Ohio.....	Oberlin.....	May 19, noon.....	Bldg. sewer-bid system, to cost \$16,000.	H. T. Marsh, Village Clerk.
Indiana.....	Bloomington.....	May 19, 4 P.M.....	Constructing 10.7 miles of sanitary sewers and purification plant to cost, \$102,136.	U. S. Hanna, City Engineer.
New Jersey.....	Trenton.....	May 19, 8 P.M.....	Constructing sewer in portions of 4 streets.	Harry B. Salter, City Clerk.
Ohio.....	Akron.....	May 19.....	Constructing sewer in Mason Av., Huntington and Nash Sts.	Ray F. Hamlin, Sec'y Bd. Pub. Serv.
Ontario.....	Brantford.....	May 21, noon.....	Furn. and laying 1,700 ft. d. s. 15-in. pipe, av. cut 10½ ft.; 2,000 ft. 12-in., 18 ft. cut; 750 ft., 12-in. c. i. pipe, 7 ft. cut, inc. crossing Grand River; also laying 2,200 ft., furn. by city, av. cut 16 ft.	T. Harry Jones, City Eng'r.
Wisconsin.....	Beloit.....	May 22, 10 A.M.....	Constructing storm water sewer in several streets.	J. A. Love, Chm. Bd. Pub. Wks.
New Mexico.....	Roswell.....	May 22, 2 P.M.....	Furn. 8 miles 8 to 18-in. sewer pipe; mat. and building sewer system complete, except pipe; furn. material and building septic tank.	John W. Poe, Chm. W. & S. Com's.
Pennsylvania.....	Ardmore.....	May 23, noon.....	Laying 2,450 ft. 12-in. and 2,050 ft. 10-in. t. c. sewer, Merion Ave.; 3,000 ft. 8-in. Highland Ave., 5 to 18 ft. deep, including 27 manholes, etc., in Merion and Overbrook.	Township Com. 205 Mahon Bldg.
Wisconsin.....	Racine.....	May 23.....	Constructing 11,000 ft., 18-15-in. pipe sewer, etc.	P. H. Connolly, Bd. Pub. Wks.
New Jersey.....	East Rutherford.....	May 25.....	Constructing sewer system, inc. 1½ miles 8 to 24-in. sewers not including house con. of 6-in. pipe.	Wise & Watson, Rutherford, Eng'rs.
Mississippi.....	Gulfport.....	May 26, 8 P.M.....	Labor and material: 15,190 ft. 24 to 6-in. vit. pipe sewers and 2 concrete bulkheads for outfall; 23 manholes; 36 catch basins, 10 gutter basins, etc.	M. F. Sullivan, City Engineer.
Maryland.....	Baltimore.....	May 27, 11 A.M.....	Bldg. storm water drains, Court No. 4, inc. 3,902 ft., 36 to 114-in. and 109 ft. 66 x 84-in. drain; 16,095 ft. 12 to 33-in. drain, 892 ft. manholes, 502 inlets, etc.; cost \$150,000.	Peter Leavy, Jr., Chm. Sewer Com'n.
Ohio.....	Chillicothe.....	May 28, noon.....	Constructing 3,000 ft. rein. concrete storm sewer; cost, \$30,000.	H. M. Redd, City Engineer.
Ontario.....	Osnabrock Centre.....	June 1, noon.....	Constructing Grantley Creek drain: cost, \$14,106.77.	Magwood & Walker, Cornwall Engineers.
Michigan.....	Saginaw.....	June 1.....	Constructing pipe sewers, to cost \$25,000.	R. W. Roberts, City Engineer.
North Carolina.....	Shelby.....	June 1.....	Constructing a sewer system.	H. E. Knox, City Engineer.
Louisiana.....	New Orleans.....	June 30, 3 P.M.....	Furn. and erecting two 100 k.w., 250 volt., dir. con. generators; two 75 h.p., 250 volt. motors; one 2,500,000-gal. turbine pump and 1,000,000-gal. triplex pump, to work against 125-ft. head, dir. con. to electric motor; 2,000,000 cen. pump; two 4,000,000 cen. pump units; two 5 h.p. 250 volt. motors; one surface condenser, 6,500 lbs. steam per hr.; air pump; piping, valves, wiring, switchboard, etc.	George G. Earl, Gen. Supt. S. & W. Board.
New Jersey.....	Avalon.....	July 2.....	Constructing portion of sewer system; cost, \$8,000.	R. L. Goff, Ocean City, Eng'r.

## Public Buildings

Pennsylvania.....	E. Conemaugh.....	May 14, noon.....	Erecting municipal bldg.; J. R. Layton, Arch., Johnstown.	J. E. McCartney, Boro. Clerk.
Alabama.....	Fort Morgan.....	May 14, 1:30 P.M.....	Construction, etc., barracks, mess hall, and 2 other buildings.	Capt. L. F. Garrard, U. S. Army.
Washington.....	Spokane.....	May 14, 2 P.M.....	Excavating, bldg. foundation, basement walls Isol. Hosp.	J. T. O'Brien, Sec'y Bd. Pub. Wks.
New York.....	Albany.....	May 14, 3 P.M.....	Bldg., complete, bldgs. at Midd. & Bing. State Hospitals.	E. E. McGarr, Sec'y St. Com'n. Lunacy.
Pennsylvania.....	Pittsburg.....	May 15, 10:30 A.M.....	Erecting 2 fire engine houses, repairs, etc., to another.	E. G. Lang, Dir. Dept. Pub. Safety.
South Dakota.....	St. Onge.....	May 15, 1 P.M.....	Bldg. addition to school; Dist. No. 29.	Daniel Power, Clk., School Dist. 29.
Pennsylvania.....	Wilkes-Barre.....	May 15, 2 P.M.....	Painting, decorating, etc., interior new Court House.	James M. Norris, Co. Controller.
Arkansas.....	Argenta.....	May 15, 4 P.M.....	Alterations to high school, also heat plant; fire escapes.	C. J. Humphrey, Sec'y School Bd.
Ohio.....	Love City.....	May 15, 7 P.M.....	Bldg. 4-room brick school.	David A. Potts, Clk. Bd. Educ.
Kentucky.....	Ashland.....	May 15, 7 P.M.....	Bldg. 10-room brick and stone school.	T. Gastra, Kenosha, Wis., Arch.
Ohio.....	Madisonville.....	May 15.....	Bldg. \$100,000 24-room school; J. R. Klein, Clk. Bd. Educ'n.	Dlausmith & Drainie, Archs., Cinc'ti.
Porto Rico.....	San Juan.....	May 15.....	Constructing a military hospital.	Wm. S. Patten, Q. M., N. Y., City.
Wisconsin.....	Oshkosh.....	May 16, 10 A.M.....	Bldg. addition to State Normal School.	Van Ryn & De Gelleke, Archs., Milw.
North Dakota.....	Binford.....	May 16, 1 P.M.....	Bldg. 4-room stone and brick school.	Hancock Bros., Archs., Fargo.
Indiana.....	Fort Wayne.....	May 16, 2 P.M.....	Erecting schoolhouse in Springfield township.	Griffith & Fair, Base Block, Archs.
Connecticut.....	New Britain.....	May 16, 3 P.M.....	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.

## Public Buildings—Continued.

South Dakota	Bridgewater	May 16, 8 P.M.	Bldg. 8-room brick and stone school, heating, etc.	Jos. Schwarz, Arch., Sioux Falls.
Minnesota	Gilbert	May 16	Erecting \$50,000 high school	Bray & Kystrom, Duluth, Archs.
North Dakota	Jamestown	May 16	Erecting new \$75,000 bldg. for State Hospital for Insane	M. E. Beebe, Fargo, Arch't.
New York	New York	May 18, 11 A.M.	Bldg. 2 schools; repairs, alterations, etc., 18 bldgs.	C. B. J. Snyder, Supt. School Bldgs.
Alberta	Edmonton	May 18, noon	Erecting school at Daysland	Roland W. Lines, Architect.
Texas	Rosebud	May 18	Erecting \$25,000 brick school; plans C. H. Page, Jr., & Co., Austin	Dr. F. Ruggin, Pres. School Bd.
Ohio	Ironton	May 19, 10 A.M.	Fixtures and furniture for new County Court House	A. C. Robison, County Auditor.
Nebraska	Schuyler	May 19, 8 P.M.	Bldg. 2-story brick City Hall and engine house	W. A. Rathbuck, Mayor.
Wisconsin	Sturgeon Bay	May 19, 8 P.M.	Erecting school bldg.; Chandler & Park, Archs., Racine	H. C. Leonhardt, City Clerk.
Massachusetts	Salem	May 19	Filing cases, steel furniture, etc., 2 court bldgs.	Moody Kimball, Chm. Co. Com'rs.
Georgia	Thomaston	May 19	Bldg. 3-story County Court House, 64 x 94 ft.; cost, \$50,000	M. H. Sandwith, Clk. Co. Com'rs.
Washington	Ft. Spokane	May 20, 2 P.M.	Bldg. 5-day school plants for Indians	Capt. J. A. Webster, Indian Agt.
Ontario	St. Catharines	May 20	Comp. plans, etc.; 6-room school; good vent., light, etc.	J. B. Malcolmson, Sec'y School Bd.
Mississippi	Oxford	May 20	Plans, etc., for \$50,000 dormitory; \$25,000 dining hall, etc.	D. M. Kimbrough, Chm. Bldg. Com.
California	Riverside	May 20	Additions and alterations to Co. jail; cost, \$12,000	Board Co. Supervisors.
Indiana	Wheatland	May 20	Erecting 2-story brick school	R. G. Dunn, Bd. Education.
Michigan	Ann Arbor	May 21, noon	Erecting chemical laboratory bldg., Univ. Michigan	Jas. H. Wade, Univ. Mich.
New York	Buffalo	May 21, 3 P.M.	Constructing, complete, U. S. Marine Hospital	James Knox Taylor, Wash., D. C.
New York	Brooklyn	May 21	Bldg. 3 shelter houses; also tennis house in parks	Henry Smith, Pres. Pk. Bd. N. Y. City
Arkansas	Corning	May 22	Furn. material and erecting city jail	Chas. Miller, Little Rock, Arch.
Kansas	Ft. Leavenworth	May 22	Bldg., plumbing, heating, etc., 5 sets officers' quarters	Capt. Wm. D. Davis, Q. M.
North Dakota	Oriska	May 22	Erecting 4-room brick school	G. G. Anderson
California	Patton	May 22	Bldg. \$15,000 concrete and wood dairy barn; \$35,000 rec. cot'ge	Trus. South Cal. State Hosp.
South Dakota	Fort Meade	May 25, 10 A.M.	Bldg. 5 sets officers' quarters, plumbing, heating, etc.	Constructing Q. M., U. S. Army.
Ohio	Cleveland	May 25, noon	Erecting school in Orange Ave.; bids whole or separate	Charles Orr, Dir. Bd. Educ.
Ohio	Port Clinton	May 25, noon	Bldg. \$25,000 school; Wurmser & Elliott, Lorain, Archts.	Board of Education.
Wisconsin	Rhineland	May 25, 2 P.M.	Bldg. City Hall; also plumbing, heating, lighting	Henry Waldhagen, Arch., Ashlan I.
South Carolina	Chester	May 25, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
Virginia	Richmond	May 25	Plans for ad. and imp. to library bldg., etc.; cost, \$85,000	Geo. P. Mundy, Sec'y Capitol Com'n.
Georgia	Brunswick	May 25	Plans, etc., for \$25,000 jail, inc. fees, etc.	J. B. Wright, Chm. Com'rs R. & R.
Pennsylvania	McKees Rocks	May 25	Bldg. superstructure, new school; plane 804 Penn. Av., Pittsburg	F. C. Sauer, Architect.
Virginia	Petersburg	May 25	Remodeling city jail; cost, \$20,000; Carneal & Johnson, Roch., Architects	Chas. R. Walsh, Chm. Pub. Prop. C.
Ohio	Cincinnati	May 25	Ventilating and heating system in Highlands school	Dr. J. M. Withrow, Bd. Educ.
Minnesota	Baudette	May 26, 2 P.M.	Bldg. school; also heating, lighting, etc.	W. R. Parsons & Son Co., Archs., Duluth.
Alabama	Florence	May 26, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
California	Agnew	May 26, 4:30 P.M.	Erecting 3 bldgs., Agnew State Hospital	Bd. Mgrs., State Hospital.
New York	Industry	May 26, 7 P.M.	Bldg. 2 cottages for boys, teachers' cottage, assembly hall, cold storage and other bldgs., St. Agr. and Indus. Sch.	F. B. Ware, Albany, State Arch.
Texas	Houston	May 28, 3 P.M.	Constructing, complete, Federal Building	James Knox Taylor, Wash., D. C.
New Jersey	Morris Plains	May 28	Material and rebdg. nurses' home, damaged by fire	J. C. Eisele, Pres. Bd. Mgrs. St. Hosp.
Mississippi	Columbus	May 30	Bldg. \$15,000 gym., etc.; \$25,000 library Indus. Inst. & Col.	H. L. Whitfield, Pres. College.
Mississippi	Agricultural Col.	May 31	Bldg. \$100,000 chapel and academic bldg., complete	A. J. Moore, Sec'y A. & M. College.
Nebraska	Grand Island	June 1, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
Pennsylvania	Wilkes-Barre	June 1	Competitive plans for \$300,000 high school, 24 rooms and aud.	Dr. G. W. Guthrie, Pres. School Bd.
Massachusetts	Springfield	June 1	Bldg. public library; E. S. Tilton, Architect, New York City	Public Library Building Committee.
Indiana	Farmsland	June 1	Erecting 6-room modern school on Morris St.	School Board.
New York	Albany	June 2, noon	Constructing N. Y. State Education Bldg.; cost \$3,500,000; Washington St.	R. H. Fuller, 63 Wm. St., N. Y. City
Minnesota	New Ulm	June 2, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
Virginia	Richmond	June 2	Comp. designs for comb. market and armory; also bids for erecting bldg., inc. arch's. fee; cost, \$100,000	C. E. Bolling, City Engineer.
Michigan	Detroit	June 3, 3 P.M.	Extending, remodeling, etc., Federal Building	James Knox Taylor, Wash., D. C.
Wisconsin	Milwaukee	June 4, 10:30 A.M.	Comp. plans branch public library; cost, complete, \$30,000	C. J. Poetsch, Chm. Bd. Pub. Wks.
California	Yreka	June 6	Constructing a Hall of Records for Siskiyou County	Board of County Supervisors.
New Hampshire	Dover	June 8, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
Missouri	St. Charles	June 12, 3 P.M.	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
California	Lemon Grove	June 15	Building 2-story school; 48 x 72 ft., etc.	Kennedy & Craine, San Diego, Archt.
Kansas	Newton	June 17	Constructing, complete, U. S. Post Office	James Knox Taylor, Wash., D. C.
Wisconsin	Rhineland	July 20	Constructing 3-story Court House; cost, \$100,000; stone, fire-proof construction, 120x95 ft. A. Taylor, Chm. Co. Com'rs.	C. H. Tegen, Manitowoc, Arch.
Oregon	Portland	June 25	Plans for \$250,000 high school	Board of Education.
Minnesota	St. Paul	August 1	Competitive plans for Mechanical Arts High School, 62 rooms; Architects all over country invited to submit plans.	Com. on Schools, School Bd.

## Bridges

Indiana	Liberty	May 14	Constructing steel bridge over Silver Creek	Union County Commissioners.
Oklahoma	Tulsa	May 14	Constructing 17 bridges	C. F. Rogers, County Clerk.
Georgia	Kings Ferry	May 14	Furn. material and building steel drawbridge over river	G. Reuben Butler, Clk. Co. Com'rs.
Virginia	Culpeper	May 14	Building 3-span steel bridge at Rapidan	W. E. Coons, Clk. Circuit Court.
Indiana	Fort Wayne	May 15, 10 A.M.	Steel bridge, 207 x 26 ft. with two 5-ft. walks, Clinton St. over St. Mary's River; also concrete abutments; also 41 concrete culverts, price per cu. yd. to include I-beams and exc.; also plank and I-beams for repair of bridges	Jos. Tonkel, Chm. Bd. Co. Com'rs.
Georgia	Lindale	May 15, noon	Bldg. 84-ft. steel or concrete bridge, 18-ft. rdbd; two 6-ft. walks	Floyd County Com'rs. Rome.
Indiana	Pittsburg	May 15	Erecting new bridges over Wabash river	Carroll County Com'rs, Delphi.
Wisconsin	Fond du Lac	May 15	west branch of river	J. F. Hohensee, City Clerk.
British Columbia	Vancouver	May 16, noon	Manufacture and erection of 2 new bridges over False Creek	City Engineer.
Pennsylvania	Deemston	May 16, 7:30 P.M.	Constructing 2 stone arch bridges	A. J. Leonard, Boro. Clk. R. D. No. 2
Oklahoma	Berwyn	May 16	Building steel bridge over Washita River, 3 miles away	W. B. Frame, Co. Clk., Ardmore.
Indiana	South Bend	May 18, 11 A.M.	Bldg. 6 concrete culverts; steel beam bridge, etc.	John W. Harbou, Co. Auditor.
Ohio	Upper Sandusky	May 18, noon	Bldg. 142-ft. steel super. and rebdg. stone abuts.	J. N. Traxler, County Auditor.
Kentucky	Pikeville	May 18, noon	Sub and superstructure bridge over Big Sandy River	John McDyer, Catlettsburg, C. E.
Georgia	Cedartown	May 18, noon	Building steel or concrete bridge over Cedar Creek	J. C. Walker, Clk. Co. Com'rs.
South Dakota	Huron	May 20	Building wood or steel bridges, also repair work, during year	T. C. Young, County Auditor.
New York	New York	May 21	Constructing railings on foot walks and lower floor and ornamental work on 4 towers, Blackwells Island bridge	J. W. Stevenson, Com'r Bridges.
Minnesota	Windon	May 22, 1 P.M.	Building 46-ft. span steel span; wood or concrete floor	David Ewart, Mountain Lake.
Ohio	Bowling Green	May 26, 10 A.M.	Bldg. rein. concrete retaining wall on south side, east ap. to bridge at Waterville; removing old wall, etc.	Wood County Auditor.
Oklahoma	Mangum	May 26, 10 A.M.	Tearing out 400-ft. bridge; also rebdg. wagon bridge	Greer County Commissioners.
Illinois	Chicago	May 27, noon	Equipping 8-track bridge at Campbell Ave. so as to operate as rolling lift bridge or Scherzer type	I. J. Bryan, Clk., Sanitary Dist.
Georgia	Columbus	May 27, noon	Bldg. steel or rein. concrete bridge over river at Dill St.	T. L. Gruzard, Chm. Bridge Com.
New York	Croton Falls	May 29	Building 2 hwy. bridges; also repairing bridge	E. J. Wulff, Tarrytown, Co. Eng'r.
Minnesota	Lanesboro	May 30, noon	Bldg. wooden bridges over Root River at Whalen	P. Abrahamson, Clk. Supervisors.

## Lighting and Electricity

Alabama	Fort Morgan	May 14, 1:30 P.M.	Lighting fixtures, wiring, plumbing, etc., 4 bldgs.	Capt. L. F. Garrard, U. S. Army.
Pennsylvania	Philadelphia	May 15, 1 P.M.	Furnishing electrical supplies at Frankford arsenal	Commanding Officer.
Illinois	Chicago	May 15, 4 P.M.	Supplying 2 motors, Chicago Public Library	H. C. Wilson, Act. Sec., Pub. Library
Iowa	Atlantic	May 15	Reconstructing mun. light and water works plant, \$50,000	J. L. Darnell, Nelson Bldg., K.C., Mo.
Alberta	Calgary	May 15	Install. at city elec. sta. 1,000 h. p. recip. engine; 750 kw. 3-phase, 60-cycle, a. c. generator; one d. c. steam-drawn exciter set, 120 volts, 30 kw.; Tirrill auto. volt regulator; 2 panel switchboard; station watt meter Alt. scheme; 750 kw. turbo-generator, complete in all details	
Colorado	New Fort Lyon	May 16, 11 A.M.	Electric lighting system at Naval Hospital	V. Hill, Eng'r, City Clerk.
New York	White Plains	May 18, 11 A.M.	Building depressed boiler and power house for Co. C. H.	Adm. R. C. Hollyday, Wash., D. C.
New York	New York	May 18, 11 A.M.	Electric equipment, etc., in Pub. Schools, 75, 156 and 158	C. T. Secor, Chm. Court House Com'n
Wisconsin	Juneau	May 18, 1 P.M.	Bldg. electric light plant for Co. Insane Asylum	C. B. J. Snyder, Supt. School Bldgs.
Alberta	Medicine Hat	May 18	Drilling 8-in. gas well to dept. of 1,100 ft.	F. L. Lindsay, Arch., Oshkosh.
Texas	Tyler	May 20, 3 P.M.	Conduit and electric wiring, Federal Bldg. and extension	W. P. Morrison, City Engineer.
Mississippi	Oxford	May 20	Com. plans for 35,000 electric light and power plant, etc.	James Knox Taylor, Wash., D. C.
				D. M. Kimbrough, Chm. Bldg. Com.



## Lighting and Electricity—Continued

Louisiana.....	New Orleans.....	May 20.....	Erecting boiler house and installing proper boiler cap.....	Bd. Superv. Charity Hospital.
Louisiana.....	New Orleans.....	May 20.....	Bldg. and equipping 600 h.p. boiler plant, house, etc., \$52,000.....	Edwin Marks, Sec'y Charity Hosp.
Dist. of Col'bia.....	Washington.....	May 23, 10:30 A.M.....	Electrical supplies, etc., Circ. 439, 1st. Canal Com'n.....	Col. H. F. Hodges, Gen. Pur. Agt.
Washington.....	Seattle.....	May 23.....	Constructing \$80,000 power plant for University.....	A. H. Markwart, Arch., Vine. Sta.
Kansas.....	Leavenworth.....	May 27, 10 A.M.....	Furn. dis. panel, cables, conduit, switches, etc.....	Supt. U. S. Penitentiary.
Ohio.....	Carthage.....	June 1, noon.....	New arc lighting system; inc. generator, switch board, wiring, and arc lamp equipment, one or all items.....	John Kuderer, Sec'y Trus. Pub. Affrs.
Illinois.....	Grafton.....	June 1.....	Constructing \$22,000 electric light plant and water works.....	W. H. Journey, Mayor.
Pennsylvania.....	Wilkes-Barre.....	June 5, 2 P.M.....	Electric light, fixtures, etc., new Court House, \$35,000.....	McCormick & French, Archs.
Utah.....	Ogden.....	June 10, 3 P.M.....	Conduit and electric wiring system, ext. to Federal Building.....	James Knox Taylor, Wash., D. C.
Dist. of Col'bia.....	Washington.....	June 16, 10 A.M.....	Furn. quantity electrical hoist equipments, motors, etc., at Newport News, Va., and Quincy, Mass.....	E. B. Rogers, P. M. Gen., U. S. Navy.
Mississippi.....	Natchez.....	June 17.....	Contract for public lighting; 5 years from May 1, 1909.....	C. W. Fowler, City Engineer.
Louisiana.....	New Orleans.....	June 30, 3 P.M.....	Electrical and pumping machinery, Algiers station.....	F. S. Shields, Sec'y S. & W. Bd.

## Miscellaneous

New York.....	Albany.....	May 14, 10 A.M.....	Boilers, pump machinery, etc., Reformatory and Hosp.....	F. B. Ware, State Arch.
New York.....	New York.....	May 14, 10:30 A.M.....	Furn. 7,500 ft. 3-in.; 25,000 ft., 2½-in.; 5,000 ft. 1½-in. rubber fire hose; 2,500 ft. 3-in. and 10,000 ft., 2½ in. cotton fire hose for Brooklyn; also 3,500 ft. 3-in.; 26,000 ft., 2½-in.; 5,000 ft., 1½-in. rubber fire hose; 1,500 ft. 3-in.; 9,000 ft. 2½-in. cotton fire hose.....	Nicholas J. Hayes, Fire Com'r.
Maine.....	Portland.....	May 14, noon.....	Constructing a concrete wharf.....	Maj. Geo. A. Zinn, Const. Eng'r
Florida.....	Fort Dade.....	May 15, 8 P.M.....	Furn. & install. ice and distilling plant.....	Constructing Q. M., U. S. Army.
Wisconsin.....	Juneau.....	May 18, 1 P.M.....	Erecting central heating plant for Co. Insane Asylum.....	F. L. Lindsay, Oshkosh, Arch
Pennsylvania.....	Johnstown.....	May 18, 8 P.M.....	Furn. fire engine to handle 800 gals. per min., wt. not over 8,700 lbs.; also fire hose, wt. not over 62 lbs. per sec.....	Geo. W. Wagoner, Pres. Fire Com'n.
New York.....	New York.....	May 19, 3 P.M.....	Laying c. i. floors on balconies of Harlem hospital.....	J. W. Brannan, Pres. Bd. Hosp. Trus.
New York.....	Fort Ontario.....	May 20, 11 A.M.....	Constructing iron and wire fence at post.....	A. R. Williams, Q. M., U. S. A.
Florida.....	Fort Pickens.....	May 20, noon.....	Constructing sea wall.....	H. B. Ferguson, Capt. Engineers.
Rhode Island.....	Ft. Adams.....	May 21.....	Sea wall.....	Capt. Willis C. Metcalf, Q. M.
New York.....	Brooklyn.....	May 21.....	Building rustic masonry wall around Sunset Park.....	Henry Smith, Pres. Park Bd.
Pennsylvania.....	Wilkes-Barre.....	May 22.....	Furn. and installing 2 pass. elevators, new Co. C. H.....	
Illinois.....	Chicago.....	May 27, noon.....	Building docks, excavating premises adjacent to Chicago River and main channel of Sanitary District.....	I. J. Bryan, Clk. Sanitary Dist.
Ohio.....	Sandusky.....	June 1, noon.....	Furn. 3 or 4 200-h.p. boilers and 400 h.p. feed-water heater.....	Dan'l Dugan, Q. M., S. & S. Home.
Dist. of Col'bia.....	Washington.....	June 1.....	Furnishing 4,500,000 bbls. Portland cement.....	Isthmian Canal Commission.

## STREET IMPROVEMENTS

**Gadsden, Ala.**—The Board of County Commissioners has called a special election, June 6, to vote on \$300,000 bond issue for good roads in Etowah County.

**Hot Springs, Ark.**—Council is considering the proposition to pave Malvern avenue to Grand avenue and Prospect avenue to Rose street.

**San Bernardino, Cal.**—It has been voted to issue \$625,000 bonds for good roads throughout this section.

**Colorado Springs, Col.**—The City has ordered construction or reconstruction of 6-foot concrete sheet or block sidewalks to conform on various streets throughout the limits.—E. C. F. Whittaker, Clerk; R. H. Ashworth, Engineer.

**Newington, Conn.**—The voters have authorized an issue of \$35,000 road improvement bonds.—Address Town Clerk.

**Wilmington, Del.**—Council has decided to issue \$30,000 in bonds for improving streets.—S. D. Townsend, City Solicitor.

**Washington, D. C.**—The Department of Municipal Engineering Isthmian Canal Commission is planning a complete system of macadam roads for the Canal Zone.

**Chicago, Ill.**—An ordinance providing for the paving of State street with brick, between Thirty-ninth street and Sixty-third street, has been approved by the Committee on Streets.

**Des Moines, Ia.**—Council has been asked to take immediate steps for the paving of Kingman boulevard, from Thirty-fifth street to Waveland park.

**Ft. Scott, Kan.**—William McElroy, City Engineer, is preparing plans for seven blocks of brick paving; bids will be received shortly by J. O. Brown, City Clerk.

**Pittsburg, Kan.**—L. D. Cornelius, City Engineer, is preparing plans for thirteen blocks of brick paving; bids will be received in about 30 days.—O. T. Jones, City Clerk.

**Wichita, Kan.**—An ordinance is before Council providing for an issue of street improvement bonds.—R. N. Dorr, City Clerk.

**Topeka, Kan.**—Plans are now being discussed for better roads in this city and Soldier and Mission.

**Frederick, Md.**—An election will be held to vote on the question of issuing \$100,000 road improvement bonds.—Address County Clerk.

**Pocomoke, Md.**—The Finance Committee will offer for sale \$18,000 street improvement bonds.

**Attleboro, Mass.**—Surveyors are engaged in laying out the new State highway, to be built in this city and in Norton, in accordance with the recent decision of the State Highway Commissioners.

**Lowell, Mass.**—A petition for paving Westford avenue, from Wilder street to Florence avenue, with Hassam pavement, has been turned down by the Committee on Streets; the Commissioner is in favor of paving the street.

**Lynn, Mass.**—Bitulithic pavement is to be laid from Market street to Houghton square; Mayor Porter may be addressed.

**Grand Rapids, Mich.**—The Board of Public Works has recommended the advertisement

of bids for grading and graveling of Cayuga street; South Fuller street, from Sherman to Fifth avenue; Garfield avenue, from Bridge street to Shawmut avenue; Shawmut avenue, from Valley avenue to Valley avenue alley.

Estimates were received from City Engineer Anderson for grading and graveling of Dean street, from Canal to North Coit avenue, to cost \$10,747, and constructing a sewer on Dean street, from Canal street to North Coit avenue, to cost \$2,157.

**Marquette, Mich.**—R. R. French is Superintendent of the Cemetery, Park and Street Commission, and can be addressed regarding street and road improvements contemplated.

**Muskegon, Mich.**—Estimates are being prepared for constructing a pavement 25 feet wide on Miller avenue.

**Duluth, Minn.**—The Board of Public Works is considering the best material to be used in paving certain streets.

**Edwardsville, Mo.**—The Board of Local Improvements is advertising for bids for the construction of 36,000 square feet of granitoid sidewalk to be laid on Hillsboro avenue and Vandalia street.

**Kansas City, Mo.**—Muncie road, between this city and Bonner Boring, Kan., will probably be paved with macadam this summer.

**West Hoboken, N. J.**—The ordinance for the repaving of Clinton avenue was passed by the West Hoboken Board of Council, and was passed without a dissenting vote.

**Auburn, N. Y.**—Garden street, from the west line of North street to the east line of State street, was ordered paved this summer.—C. August Koeling, Mayor.

**Mount Morris, N. Y.**—Work on the new highway between Mount Morris and Avon will soon be commenced; distance, about 16 miles; estimated cost, \$40,000.

**Oswego, N. Y.**—Mayor Smith recommends that some plan be devised for raising \$10,000 for constructing about fifteen sewers, petitions for three or four of which have been filed for three years or longer.

**Rensselaer, N. Y.**—The matter of paving the hill streets in this town with granite blocks is being considered; it is also probable that the level streets will be repaved with brick; a portion of the pavement on Tracy avenue is to be replaced.

**Rochester, N. Y.**—Final ordinances have been adopted by Council as follows: Meng and Melville streets, crosswalks; Earl street, pavement; Locust street, pavement; Wren street, walks; Blair street, walks; Fairview Heights, walks; Durkin alley, pavement; Florence street, pavement; Andrews street, pavement; Flower City Park, pavement; Albemarle street, pavement; Alexander street, repairs; Manhattan street, walks; Morrill street, walks; Forester street, walks; Lansdale street, pavement; Pembroke street, pavement; Nelson street, pavement; Meigs street, from Caroline street to Linden street and from Caroline to Rockingham street, pavement; Stewart street, pavement; Winter street, pavement; Normandy avenue, extension; Warwick avenue, extension; Woodbine avenue, extension; Selye terrace, care and embellishment; Magne street, sprinkling; Raines Park, care and embellishment; Birr street, care and embellishment; Glendale

Park, care and embellishment; Werner Park, care and embellishment; Oxford street, care and embellishment; Lafayette place, care and embellishment; Park avenue, sprinkling; Clinton avenue South, cleaning and flushing; Chili avenue, flushing; Concord street, sweeping and cleaning; Flower street, sweeping and cleaning; Caroline street, sweeping and cleaning; Monroe avenue, sweeping and cleaning; Belmont street, sweeping and cleaning; Field street, sweeping and cleaning; Lexington avenue, sweeping and cleaning; Hague street, sweeping and cleaning; Oriole street, sweeping and cleaning; Lake avenue, sweeping and cleaning; South avenue, sweeping and cleaning; St. Paul street, sprinkling; Fountain street, sprinkling; Sycamore street, sprinkling; Avenue D, sprinkling; Wild street, sprinkling; Algonquin Terrace, sprinkling; Clinton avenue South, sprinkling.

First ordinances were adopted as follows: York street, sweeping and cleaning; Troup street, sprinkling; Evergreen street, paving; Tacoma street, paving; Federal street, cement walks; Arbutus street, walks; Engel street, walks; Morgan street, walks; Gold street, walks.

Mayor Edgerton has signed Assemblyman Haggarty's bill providing for the construction of a subway at the Brown street crossing of the New York Central and B. & P. Railroads; the bill was sent to Governor Hughes for his consideration, and if his approval is given the construction of the subway is assured. This does not mean necessarily that the subway will be built at Brown street, as the matter of determining the location is left with the Public Service Commission. It is not probable that the commission will place the subway at Brown street against the desire of the residents. Subways at Saxton and Madison street seem to have been the most favorable plan, with a subway for pedestrians at Brown street, the crossing being otherwise closed.

Plans are under way for the construction of a macadam road between this city and North Chili.

**Manvel, N. D.**—Bids will be received by C. E. Colosky, Clerk Board of Supervisors of Ferrytownship, for building and repairing about eight miles of road; plans, etc., at office of Clerk.

**Dayton, O.**—The Clerk of the Board of Public Service was instructed to advertise for bids for constructing a cement floor for the bridge across the Dayton hydraulic at Webb street.

**Gallion, O.**—Council has passed a resolution declaring it necessary to improve West Main street by paving with brick on a concrete foundation; Engineer E. G. Bradbury of Columbus has estimated that the cost is excessive.

**Follansbee, O.**—Council has agreed on a large amount of paving to be done this summer.

**Fostoria, O.**—Council, under suspension of rules, has ordered the construction of forty sidewalks as well as the construction of a large number of sewers.

**Mansfield, O.**—W. S. Bradford, City Auditor, will open bids May 25 for the purchase of \$28,000 worth of general street improvement bonds.



## SEWERAGE

**Mt. Gilead, O.**—Vine and South Main streets are to be paved with brick as soon as plans can be prepared.

**Springfield, O.**—Mayor W. R. Burnett has signed \$25,000 street improvement bonds which will be taken by John G. Webb & Co. Ordinances will shortly be introduced in Council asking for the construction of paving in the first alley west of Wittenberg avenue, from Washington to North streets.

**Toledo, O.**—Seven streets in the city are in such a condition that it will be impossible to repair them.

**Youngstown, O.**—Council will pave Garlick, Northwest, Marion and George streets; ordinances have passed their final reading.

A petition has been presented asking for the paving of High street.

**Lawton, Okla.**—Council is arranging to improve several streets by paving.—Address Clerk, Board of Public Works.

**Oklahoma City, Okla.**—Council is preparing to pave eight miles of city streets, at a cost of \$100,000; 25 per cent. macadam and the remainder either asphalt or brick; storm sewers will be put in at the same time.—Harry M. Scales, Mayor.

**Medford, Ore.**—At a meeting held recently better roads for Jackson County were discussed; W. I. Vawter can be addressed for further information.

**Homestead, Pa.**—The Finance Committee of Council will meet to consider \$180,000 bond issue for street improvements.

**Pittsburg, Pa.**—Mayor Guthrie has affixed his signature to the street repaving schedule recently passed by Council; the ordinance provides for the outlay of \$300,000, of which amount about one-sixth goes to the North Side.

A committee representing 175 property owners on Grant boulevard recently called on Director A. B. Shepherd to urge that the boulevard be paved with asphalt. The committee consisted of George Vogel, D. W. Thompson, W. J. C. Floyd, Robert Chambers, James Strothers, J. C. Haggerty, Frank Gliza and C. F. Roundtree.

**Prospect Park, Pa.**—The question of compelling the negligent property owners along the Chester pike to construct sidewalks in front of their places was referred to the Highway Committee, the members of which will make a canvass of the borough for the purpose of compiling a list of properties which have not yet been improved by the construction of sidewalks in accordance with a borough ordinance. This list will be presented with a resolution requiring property owners to comply with the ordinance within thirty days, otherwise the improvement will be made by the borough and liens filed against the negligent owners' properties. The solons have expressed their determination to compel the property owners, particularly those who defied previous Councils, to live up to the ordinance.

**De Witt, Tex.**—The Commissioners and the County Judge are investigating, preparatory to securing better roads; new roads are planned in the Hochelm and Nordhelm sections.

**Fort Worth, Tex.**—Two petitions are being circulated for paving El Paso street and College street; both petitions call for rock asphalt as material.

**Luling, Tex.**—An election will be held to vote on the question of issuing \$10,000 street improvement bonds.

**San Antonio, Tex.**—The County Good Roads Association has decided to circulate petition for special election to vote on \$250,000 bonds for good roads.

**Bristol, Va.**—The Board of Public Works has decided to expend \$10,000 in street improvements.—Address Clerk, Board of Public Works.

**Wheeling, W. Va.**—The Board of Public Works decided to ask the City Finance Committee for \$53,365 to meet the expenses of the Department for the coming fiscal year of thirteen months. The amount appropriated for the twelve months of 1907-8 was \$39,315, thus making the increase \$14,050. This increase is principally in street cleaning and repairs. For 1907 \$8,500 was appropriated for cleaning and \$8,000 for repairs. The amounts for 1908 are \$10,000 for cleaning and \$20,000 for repairs.

Clerk Bowers was instructed to advertise for proposals to furnish paving brick, paving block, sewer pipe, stone and concrete curbing.

**Milwaukee, Wis.**—The Board of Public Works has decided to pave a number of the streets in the city with permanent pavement, including Florida street, Muskego avenue, Wells street, Concord avenue, Lake drive and Teutonic avenue; asphalt and Kettle River sandstone will be the materials used.

**Racine, Wis.**—An ordinance is before Council providing for an issue of \$50,000 street improvement bonds.

**Montreal, Que.**—Council has adopted a recommendation for paving Craig street, from St. Lawrence to Delorimier at a cost of \$77,000.

**Birmingham, Ala.**—Bids are to be taken at once for sanitary sewer to cost \$5,000 in North Highlands.—Julian Kendrick, City Engineer.

**Lodi, Cal.**—Engineer H. Henderson of Stockton, has submitted plans for the proposed sewer system.

**Fresno, Cal.**—Council has passed an ordinance providing for the construction of a six-inch sewer on Ventura avenue.

**San Francisco, Cal.**—The Board of City Supervisors has appropriated the sum of \$375,000 for the reconstruction of, and \$187,460 for repairing and cleaning sewers.—Marsden Manson is City Engineer.

**Cedartown, Ga.**—An election will be held May 25 to vote on the question of issuing \$30,000 sewer bonds.

**Bloomington, Ill.**—The Board of Public Improvements is now considering the matter of constructing the proposed Magoon street sewer.

**Chicago, Ill.**—The residents of the Gage Park section of this city are agitating the matter of securing good sewerage.

**Farmer City, Ill.**—Plans have been submitted to Council by City Engineer Smith for the proposed sewer system.

**Peoria, Ill.**—Plans are to be made and bids asked shortly for constructing a sewer in North Peoria, to cost \$234,000.

**Fort Wayne, Ind.**—P. M. Randall, City Engineer, has plans under way for sewer system for Forest Park section of city.

**Indianapolis, Ind.**—Bids will be received shortly for constructing six miles of 10-inch to 7-foot concrete sewer, estimated to cost \$150,000.—Charles A. Brown, Assistant City Engineer.

**Jeffersonville, Ind.**—The Board of Public Works has decided to have a complete sewer system constructed for those portions of the city west of Mechanic street, east of Indiana avenue and north from the river to Fifteenth street.—V. W. Lyon, City Engineer.

**Bloomfield, Ia.**—The town is to have 2,900 feet of sewer constructed.

**Topeka, Kan.**—Council has received an estimate of the probable cost of constructing a new sewer to drain the district bounded by Fillmore, Buchanan, First and Fourth streets.

**Wichita, Kan.**—Plans for proposed sanitary sewer east of drainage canal have been completed by Bert Wells, City Engineer.

**New Orleans, La.**—An act has been passed authorizing the issuance of bonds for the making of connections to the sewerage system and the extension of the drainage system.

**Baltimore, Md.**—The Sewerage Commission is to build a number of storm water sewers at a cost of \$130,000.

**Brockton, Mass.**—The Overseers of the Poor have decided on the bettering of the sewerage connections at the City Farm; one new cesspool is to be built, and new piping and drainage is required; the present system will be generally overhauled.

**Grand Rapids, Mich.**—Plans are under way for the construction of a sewer in Giddings avenue, from Fifth avenue to Sherman street.

Installing of several sewage pumping stations is proposed. L. W. Anderson, City Engineer, estimates the cost at about \$195,000.

**Hancock, Mich.**—C. B. M. Craig, City Engineer, has surveys under way for sewer in Ethel avenue and Fifth street, in West Hancock.

**St. Paul, Minn.**—The Board of Public Works, R. L. Gorman, Clerk, will soon ask for bids for the construction of the Portland Aldine Park sewer system, to be laid here. Estimated cost, \$135,000.—L. W. Rundlett, City Engineer.

**Meridian, Miss.**—The city will let contract shortly for laying half mile of sewers.—W. G. Wetmore, City Engineer.

**Franklin, Mo.**—City is to construct sewer system to cost \$30,000.

**St. Louis, Mo.**—Surveys are to be started shortly for the diversion of the River des Peres through Forest Park into a sewer; a bond issue of \$1,500,000 has been voted for the purpose.

**Springfield, Mo.**—H. G. Horton, City Engineer, is preparing plans for the construction of storm water sewers.

**David City, Neb.**—Bids will be asked for at once for the construction of a \$7,000 sewer system.

**Perth Amboy, N. J.**—The citizens are protesting against the proposed extension of Sheridan street sewer because, they claim, it is not large enough to carry the drainage from that section of the city.

**Trenton, N. J.**—Mayor Madden has signed the following ordinances: No. 17, introduced by Mr. Freudenmacher, authorizing the issuing of \$21,000 worth of bonds to provide toilet facilities and make sewer connections for thirteen school buildings; No. 20, introduced by Mr. Weeden, providing for the construction of sewer No. 407, in Woodland street; No. 22, introduced by Mr. Weeden,

authorizing the construction of drain No. 68, in Furman street.

**Cortland, N. Y.**—The matter of constructing a sewer in Railway avenue is now being considered.

**Hamburg, N. Y.**—The Village Board is to take steps to secure sewer system.

**Lyons, N. Y.**—Business Men's Association, Charles A. Noble, President, is taking steps to secure a sewer system for this village.

**North Tonawanda, N. Y.**—A. F. Smith, City Engineer, has completed plans and estimates for proposed new sewer system in Rumboldt avenue; work will cost \$29,000.

**White Plains, N. Y.**—Eight bids were submitted May 5 for the \$1,000,000 issue of 4½ per cent. Bronx Valley sewer bonds, for which there were no bids some weeks previous at 4 per cent.; those who bid for the entire issue were W. A. Read & Co., \$1,060,700; Estabrook & Co., \$1,041,400, and N. W. Harris & Co., \$1,028,100; the bonds were awarded to W. A. Read & Co.

**Monroe, N. C.**—J. Shute & Sons contemplate extending their 10-inch sewer line about 2,500 feet; plans are being prepared by F. F. Wetmore, of Lumberton, N. C.

**Akron, O.**—M. H. O'Toole, at \$1,641, was low bidder April 23 for constructing sewer in Olive street and Schiller avenue; Mathew McCourt, at \$1,150, was low bidder for sewer in Bishop street and Edgewood avenue.

**Ashtabula, O.**—The Board of Public Service will connect all flush tanks in sewers with the water supply.—A. J. Richardson, Clerk.

**Athens, O.**—In Clarke Superior Court the recently authorized issue of city bonds was validated for \$40,000 for new sewers and \$35,000 for new water mains. The bonds are now ready to be placed on the market, and the Mayor and Council will authorize the Finance Committee to proceed to advertise for bids. As soon as the bonds can be disposed of the work on the new sewer and water mains will be started.

**Barberton, O.**—A resolution declaring it necessary to construct a local sanitary sewer on a part of Holmes avenue has passed Council.

**Bellefontaine, O.**—Council has decided to install a complete system of sanitary sewers and proposals will be asked for plans and specifications; it is estimated that the work will involve an expenditure of about a quarter million dollars.

**Dayton, O.**—F. J. Cellarius, City Engineer, has submitted following estimates for sewer work: In Clinton street and Eichel Lane, \$1,000; in Williams street, from Home avenue to Weidner, \$650; in Meredith and Holt streets, \$3,150; in Salem and North avenues, \$1,150; the Federal street interception, \$750; in first alley west of Main, from Marathon avenue to Santa Clara avenue, \$800.

**Fostoria, O.**—Bids as follows were received April 21 for the construction of a sewer on Columbus avenue, as follows: J. J. Rumsey, \$5,562.35; J. J. Peter, \$5,580; Schouder & Nepper, Tiffin, \$5,610.

**Salem, O.**—A petition signed by a number of property owners on Sugar Tree alley, asking for a sanitary sewer has been presented to Council.

**Springfield, O.**—Legislation has passed Council providing for the construction of sewers on half a dozen specified streets.

Resolutions will shortly be presented to Council asking for the construction of sewers on Dibert, Jackson, Euclid and Yellow Springs streets.

City Engineer has prepared plans and estimates for sanitary sewer in Dibert avenue, to cost \$11,289, and a sewer in Grand street, to cost \$8,460.—H. G. Horton, City Engineer.

**Upper Sandusky, O.**—This place has voted against the issuance of \$40,000 of sewer bonds.

**Urbana, O.**—Council has definitely decided to favor the construction of a sewage disposal plant.

**Wyoming (P. O. Cincinnati), O.**—Village Council has voted to issue \$48,000 of bonds for constructing sewer system.

**Youngstown, O.**—A petition to have High street paved was presented to Council and referred to the Board of Service; a remonstrance will be submitted, the signers of which say they would like to see their street paved well enough, but do not want it done until the sewer question on that thoroughfare has been settled; it is claimed the present sewer is too small.

Simon Packing Company has been granted right to build a sewer in South avenue to its plant.

Board of Public Service has recommended construction of sewers in Highview avenue and in Byron, Hawn and Carr streets.

**Durant, Okla.**—Council has accepted plans and specifications for a sewer system to cost \$20,000.

**Pauls Valley, Okla.**—The city has sold \$45,000 of bonds and work on constructing sewers will be started soon.

**Ponca City, Okla.**—City has disposed of \$32,500 of bonds, part of which are for a sewer system.

**Portland, Ore.**—Council has decided to appropriate \$500 for securing services of Engineer to prepare plans for a new disposal plant.

**Dorranceton, Pa.**—The Borough Council is considering the construction of a trunk sewer from Wyoming avenue to the river to carry the sewage of Luzerne and Dorranceton.

**Erie, Pa.**—The State Board of Health has given the city of Erie, the Board of Poor Directors, the Soldiers' Home and private parties until next November to adopt a system which will do away with the dumping of sewage into Mill Creek, Cascade Creek and the bay of Erie; all the sewage must be disposed of without polluting the streams and bay; the city of Erie will have to expend about \$125,000.

**Forest City, Pa.**—Some time ago an appropriation was made for the construction of a sewer system for this borough, but nothing has ever been done; it is probable the borough officials will shortly take up the matter.

**Greenwood, S. C.**—Election will be held this month to vote on issuance of \$50,000 of bonds for paving and sewer extensions.

**Meadville, Pa.**—City Engineer B. F. Miller is preparing general outline plans for a sewage disposal plant; the State Board of Health requires the elimination of all storm water from the sanitary sewer system.

**Harrisburg, Pa.**—M. B. Cowden, City Engineer, has prepared estimates for proposed river wall and sewer.

**Middletown, Pa.**—The State Health Department has served notice on the borough to prepare plans for establishment of a sewage disposal plant, with a view to diverting its sewage from the Susquehanna River.

**Mars, Pa.**—Preliminary steps have been taken for the construction of a sewage plant.

**Pottstown, Pa.**—This place may have to erect sewage disposal plant.

**Prospect Park, Pa.**—Permission was granted the Sewer Committee to readvertise for bids for the construction of sewers, one on Eleventh avenue, another on Seventh avenue, from Lincoln to Madison avenues, and another on Lafayette avenue, between Eighth and Ninth avenues, and along the alley to Health Officer E. A. Gould's property; there was some misunderstanding among the bidders who answered the original proposals, and it was for this reason that the Sewer Committee requested that the bids be readvertised; the borough will extend the sewer system west on Eleventh avenue to the top of the hill, about 160 feet.

An ordinance providing for the extension of the sewer system to the Linmoore tract and the Moore tract, which embraces the entire northeastern section of the borough, from Tenth avenue to the Amosland road, at Holmes, was passed on first reading.

**Aberdeen, S. D.**—The citizens have voted bonds for the construction of a sewerage system; nothing definite has yet been done.—F. W. Raymond, City Auditor.

**Beresford, S. D.**—The question of constructing a sewerage system is under consideration.

**Watertown, S. D.**—Council has decided to lay fifteen blocks of sewers this season.—Address Clerk, Board of Public Works.

**Chattanooga, Tenn.**—Surveys are under way for proposed Chattanooga Creek sewer and pumping station; cost will be \$100,000.—Robert Hooke, City Engineer.

**Knoxville, Tenn.**—Ordinance is before Council appropriating funds for constructing 7,192 feet of 8-inch sewer laterals; estimated cost is \$4,784.—S. D. Newton, City Engineer.

**Hereford, Tex.**—The citizens have voted in favor of a \$20,000 bond issue for the construction of sewers.

**North Fort Worth, Tex.**—Mayor Grant, in an address to Council, made reference to a sewer system and promised to present something tangible real soon.

**South Boston, Va.**—Bonds, \$80,000, have been voted for improving the present water works plant and for constructing sewerage system.

**Bellingham, Wash.**—Resolutions have been adopted by the Council ordering the Board of Public Works to have plans and specifications prepared for the construction of a trunk sewer in Holly street, from E street to C street, and in Champion and Holly streets, from Magnolia to C streets.—Harry W. Troutman, City Engineer.

**Beloit, Wis.**—Council has passed ordinance to issue \$10,000 of bonds for constructing sewers.

**Burlington, Wis.**—Mayor Zimmerman has recommended establishment of sewer system.

**Barrie, Ont., Can.**—C. H. Mitchell, C. E., Traders' National Bank Building, Toronto, Ont., is preparing plans and estimates for the construction of a complete sewerage system for the Fifth and Sixth Wards.

**Hamilton, Ont., Can.**—A sewage disposal plant will be constructed here. Estimated cost, \$135,000.—J. R. Heddle, Assistant City Engineer.

## WATER SUPPLY

**Colorado Springs, Col.**—A reservoir to cost about \$100,000 is to be constructed this summer by the Beaver Land and Irrigation Company on the Shaefer ranch, owned by Colorado Springs, on Beaver Creek, thirteen miles from Florence, and negotiations with the City Council for the purchase of the property have been entered into.

**Wilmington, Del.**—Plans are now being made by Theo. Leisen, city, for slow sand filters, at an estimated cost of \$250,000.

**Lyons, Ga.**—About \$15,000 will be expended for water supply.

**Sylvester, Ga.**—The citizens have voted in favor of issuing \$20,000 of bonds for the construction of water works.

**Ashton, Ida.**—Bonds will be issued for the construction of a water works system.

**Spencer, Ind.**—The Home Water Works Company has recently been incorporated in this town and has under consideration the construction of a new water works plant.

**Dike, Ia.**—The plans of Roland & Turner, Consulting Engineers, Des Moines, for the construction of water works for this place have been accepted by the Town Board.

**St. Ansgar, Ia.**—Council has directed estimates to be secured for water system.

**Waterloo, Ia.**—The Waterloo Water Company is arranging to extend water mains in several streets.—Address Secretary.

**Kansas City, Kan.**—The City is to build its own water works, and bonds are to be issued as soon as possible for the purpose.

**Bellevue, Ky.**—A special meeting of the Bellevue Welfare Association was held to discuss the recent action of Council in passing a resolution to ask for bids for supplying the city with water.

**Newport, Ky.**—Council has passed a resolution providing for an appropriation of \$32,000 for repairing the pumping station and for an emergency main connecting with Covington.

**Springfield, Mass.**—Work is being pushed as rapidly as possible on the new water system in Mundale and the Little River Gorge, which will supply this city with water.

**Detroit, Mich.**—The Water Board may expend \$1,500,000 for the expansion of the water works system; \$400,000 is wanted for a pumping station, \$300,000 for two engines, \$150,000 for boilers, and a large amount for pipe, etc.

**Saginaw, Mich.**—The City Engineer reports that the water mains are being destroyed by the electric currents.

**Cottonwood, Minn.**—Plans are being prepared for the extension of the village water works system.

**Lismore, Minn.**—A water system of some kind is to be installed in this town.

**Minneapolis, Minn.**—The Finance Committee is projecting a system of artesian water supply for Burnham Wood, an addition of this city.

**St. Joseph, Minn.**—County Surveyor Chute has presented plans to the Village Recorder for connecting the village water works system with the system which the Sisters of St. Benedict have installed at the convent; as soon as plans are adopted bids will be asked for the work.

**Wabasso, Minn.**—The citizens have voted \$7,000 bonds for the construction of water system.

**Crystal Springs, Miss.**—The Board of Managers of the Chautauqua Assembly have appropriated \$1,500 to install a water works plant.

**Jackson, Miss.**—Council has under consideration an issue of \$195,000 bonds for improving water system.—A. P. Lusk, City Clerk.

**Oxford, Miss.**—The city will construct new electric light plant and water works; cost of new plant estimated at \$15,000.—R. S. Adams, Mayor.

**Helena, Mont.**—The taxpayers have voted bonds for the construction of new municipal water works system for the city and for the extension of the present sewerage system.

**Weston, Neb.**—The citizens voted in favor of constructing a system of water works; plans and specifications will be wanted for a system, to cost about \$8,000, and a building, costing about \$2,000.—F. Pacal, City Clerk.

**Caldwell, N. J.**—The matter of extension of the water system into the property of the American Homes Company has been decided upon by Council and bids will shortly be asked.

**Lyons, N. Y.**—At a meeting of citizens the proposition of putting in a sewerage system and of purchasing the present water works plant were again discussed.

**Mt. Morris, N. Y.**—The Mills Water Works Company has made a proposition to the Village Trustees to sell their interests in the water works; a meeting of the residents will shortly be held for the purpose of discussing the matter.

**Fargo, N. D.**—The Water Works Committee recommends the establishment of a filter plant.—Address City Engineer Crabbe.

**Velva, N. D.**—Bonds, \$15,000, have been

voted for water supply; it will be supplied from a spring one mile distant.

**Barberton, O.**—The municipal water works system has been pronounced a failure, and it will be necessary for Council to pay out thousands of dollars to provide a new source of supply and to construct new conduits.

About \$22,000 will be expended for improving water system in West Barberton.—H. W. Alcorn, Engineer.

**Canton, O.**—The Finance Committee of Council proposes to expend \$15,000 for the extension of water pipes.

**Dayton, O.**—Clerk Budroe, of the Board of Public Service, was authorized to advertise for bids for 490 tons of cast iron pipe for water works.

Engineer Cellarius submitted estimate of \$396 for extension of water main on Summit street, from Dakota to Blaine; referred to Water Works Superintendent.

City will extend water mains on Broadway, from Albany street south, at estimated cost of \$2,531.

**Hubbard, O.**—Engineers Brewster and Wilson of Niles will furnish preliminary plans for the village for the water works and sewer system; however, engineers from outside will be asked to participate.

**Lorain, O.**—Superintendent Roberts of the Water Department has completed plans for the extension of the intake pipe at the filter plant; estimate, \$60,000; the improvement will be authorized.

**Springfield, O.**—L. M. Harris, City Auditor, will open bids, June 9, for \$20,000 worth of water works extension bonds.

**Westerville, O.**—The village will expend about \$2,500 for sewer and water extensions.

**Muskogee, Okla.**—The city officials of Tahlequah, Ft. Gibson and Muskogee are considering plans for a gravity water system to supply the three towns.—Address City Clerk of Muskogee.

**Tulsa, Okla.**—An election will be held May 25 to decide the question of issuing \$225,000 water works bonds.

**Erie, Pa.**—The Board of Water Commissioners has decided to lay a new main in the south side of Twelfth street, Parade to East avenue. This was thought advisable to save digging across the 100-foot street to make connections with the mains now laid on the north side. The pipe will run under the lawns and connections can be made as called for without tearing up the pavement. About 4,000 feet of 6-inch pipe will be required for the work.

**Lancaster, S. C.**—Bonds, \$30,000, have been voted for water works.—Ernest Moore, Water Commissioner.

The citizens have voted \$30,000 bonds for the construction of water system.—Charles D. Johnson, Commissioner of Public Works.

**Childress, Tex.**—Specifications are being prepared for \$10,000 water system.

**Loraine, Tex.**—Council has entered into a contract with Higginbotham, Harris & Co., whereby the firm agrees to construct and maintain for a year a water works system for public and private use.

**Rotan, Tex.**—Plans are under way for the construction of a new water works system for the town; a first-class system is to be installed.

**Sulphur Springs, Tex.**—The expenditure of \$30,000 has been authorized for extending water mains and for purchasing additional pump machinery.

**Salt Lake City, Utah.**—The Board has ordered several water main extensions.

**South Boston, Va.**—The citizens have authorized \$18,000 6 per cent, 34-year water bonds.

**Parkersburg, W. Va.**—The city contemplates constructing new water works, with a capacity of about 4,000,000 gallons daily.—Chapin & Knowles, Pittsburg, Pa., are Engineers.

**Tacoma, Wash.**—Council proposes to purchase a condenser and make other improvements to the water system.

**Manitowoc, Wis.**—The Manitowoc Water Works Company will build a 1,000,000 gallon reservoir.—Address Secretary of the Water Works Company.

**Portage La Prairie, Man., Can.**—The city authorities propose to expend \$50,000 improving water system.

## LIGHTING AND ELECTRICITY

**Cascade, Col.**—The Cascade Town Company is planning to construct an electric light plant.—C. E. Heyer, Manager.

**Colorado Springs, Col.**—The Colorado Springs Electric Company and the Colorado Springs and Interurban Company propose to place metal poles; Mayor D. N. Helger is negotiating with the two companies in regard to lighting the streets.

**Millsboro, Del.**—The Town Council will soon take active steps towards securing electric lights.

**Jacksonville, Fla.**—D. G. Ziegler & Co., of Atlanta, Ga., are considering a proposition to



establish a hydro-electric plant on the Seewanee River, where 25,000 h.p. can be developed at a cost of about \$130,000. It is proposed to furnish electricity within a radius of sixty miles for electric railways, motors and lamps. Among the towns within this radius are Jacksonville, Fla.; Lake City, Fla.; Valdosta and Waycross, Ga.

**Lyons, Ga.**—Estimates are being prepared for a municipal lighting plant.

**Ligonier, Ind.**—Bids will be received May 14 for the purchase of \$16,000 4½ per cent. electric light bonds.—R. E. Jeanneret, City Clerk.

**Seymour, Ind.**—The Indiana Public Service Company, of Indianapolis, is seeking a gas and electric lighting franchise in the city, as the contract with the company now supplying light has about expired; an ordinance has been submitted to Council in which the price of gas is fixed at \$1.25 per thousand feet, and electric arc lights, 2,000 candle power, at \$65 per year, moonlight schedule.

**Syracuse, Kan.**—W. R. Humphrey is interested in the Kansas, Colorado Power and Railway Company, being organized to establish a power plant and electric railway.

**Louisville, Ky.**—Over \$200,000 bonds have been sold by the Louisville Gas Company; the money is to be used for extension of mains and improvements.—F. M. Sackett, President.

**Poplarville, La.**—An election will be held to vote on the question of issuing \$10,000 light and water bonds.

**Plainwell, Mich.**—About \$50,000 will be expended by the Commonwealth Power Company, constructing a dam, a mile below Plainwell.

**Ellsworth, Minn.**—A franchise has been asked for an electric light plant.

**Minneapolis, Minn.**—The business men and other residents will hold a public meeting to discuss the project of installing an electric lighting system in Vienna.

**Canton, Miss.**—The Municipal Electric Light and Water Works Commissioners contemplate changing the street lighting system from 1,100 volts, 133 cycles, to 2,300 volts, 60 cycles, and probably will install two alternators of 180 and 120 kw., respectively, and Corliss engine. The Commissioners have awarded contract to the Westinghouse Electric and Manufacturing Company, Pittsburg, Pa., for a 75-arc-lamp series alternating current system.—John T. Sharp, Superintendent.

**University, Miss.**—University of Mississippi will install \$35,000 electric light and power plant in connection with building improvements; competitive plans are asked.—D. M. Kimbrough, Chairman, Building Committee, Oxford.

**Vicksburg, Miss.**—The firm of Edward M. Dean & Co., of Grand Rapids, Mich., will purchase the electric light company franchise secured some months ago by Harry K. Johnson; before the paving work was put down in Washington street, the wires of the new proposed electric light company were placed underground.

**St. Louis, Mo.**—Superintendent Robert Quain, of the Fire Alarm and Police Telegraph Department, has asked City Comptroller Player for an appropriation of about \$20,000 to buy 450 miles of copper wire, to be used in replacing fire alarm circuits.

**Townsend, Mont.**—It has just been announced that the Deep Creek Improvement Co. is about to build a 600-h.p. electric plant on Deep Creek, to cost about \$85,000. Power will be used for lighting Townsend and for operating the mines.—N. S. Poole, President.

**Beatrice, Neb.**—The gas holder owned by the City Gas and Power Company has been destroyed by fire.—H. V. Riesen, Manager.

**Bergen, N. Y.**—The Genesee County Electric Light, Power and Gas Company, of Batavia, has been granted permission by the Public Service Commission to furnish electricity in Bergen; the company will also supply electricity for the pumps at the water works plant and for lighting.—R. M. Walker, Secretary.

**Hickory, N. C.**—Temple & Sommer, Engineers, Land Title Building, Philadelphia, are making estimates for the proposed plant of the Water Power Electric Company, which, it is said, will have a capacity of 3,000 h.p.—M. E. Thornton, President.

**Bucyrus, O.**—People will vote on the question of a bond issue for a municipal electric lighting plant.

**Lewisburg, O.**—Harry McDargh, Engineer, is preparing preliminary plans for a municipal electric lighting plant, to cost \$26,000.

**Lima, O.**—The City Council has voted to issue \$80,000 in bonds to erect a municipal lighting plant; it is planned to erect a plant of sufficient capacity to furnish commercial current.

**Algonquin, Okla.**—The Algonquin Light and Power Company has been incorporated with \$100,000 capital by Thomas F. Spellman, R. S. Galer and others.

**Waurika, Okla.**—Plans are being prepared and bids will be asked in about thirty days

for an electric lighting plant, to cost \$15,000; the system will consist of 50 arc lamps of 2,000 c.p. and 4,000 incandescent lamps of 16 c.p., and will be operated by steam.—The O'Neil Engineering Company, Wilson Building, Dallas, Tex., is Engineer.

**Ashland, Ore.**—Bids will be received in about thirty days for a power plant to cost \$150,000 and capable of supplying power for 15,000 lights. It will be located in the Brewster Valley. All surveys have been made and plans have been made for flume, pipe line and power house. The dam site has been secured, also site for a 35-acre reservoir, to be 30 feet deep. About 600 acres will be flooded with twelve feet of water. All right-of-way has been secured. There will be 35 miles of pipe line.—C. E. Smith is in charge; J. S. N. Smith is Consulting Engineer; E. N. Kelley, Portland, Ore., is Designing Engineer; J. R. Benson is owner.

**Norristown, Pa.**—It is the intention of Council to extend the municipal electric light plant.—Harry P. Hiltner, Clerk of Council; W. G. Risdon, Superintendent.

**Pittsburg, Pa.**—John P. Brennan, Architect, is preparing plans for a one and two story power house for the Department of Charities and Correction, Victor James P. Shaw, Superintendent; estimated cost, \$50,000.

**Columbia, S. C.**—The Columbia Electric Street Railway Light and Power Company will install a 1,000-kw. generator and other electrical machinery in its water power plant.—Edwin W. Robertson, President; Alfred Wallace, Superintendent.

**Greenville, S. C.**—The Greenville and Carolina Railway Company, T. E. Smith, President, will build a water power electric plant, developing about 6,000 h.p. for transmission by electricity for lighting and power purposes. It is stated that arrangements will be made to begin construction soon, contract to be awarded to Carolina Construction Company, of Asheville, N. C.

**Spartanburg, S. C.**—The Spartanburg Street Railway, Gas and Electric Company has been purchased by the Electric Power and Manufacturing Company, in which Pittsburg capital is interested, and will make extensive improvements.—F. D. McEwen, General Manager.

**Lewisburg, Tenn.**—The Lewisburg Light and Power Company has been organized with \$10,000 capital stock to build water power electrical plant at Lillard's Mills on Duck River, about ten miles from Lewisburg.—E. L. Ascheim, President; J. B. Hardison, Secretary and Treasurer.

**Centralia, Wash.**—An election will be held to vote on \$45,000 bonds for a municipal lighting station.

**Eau Claire, Wis.**—The city will readvertise for bids for city lighting.—Address Mayor Frawley.

**Milwaukee, Wis.**—The Plankinton Light and Heat Company is planning to make improvements; extensive increase in the area of operation has been planned.

**Watertown, Wis.**—Plans are being prepared by the Milwaukee Light, Heat and Traction Company, controlled by the Milwaukee Electric Railway and Light Company, for construction of a power house at Watertown to furnish electricity to operate the electric railway now under construction from this city to Oconomowoc. The company has decided to make improvements to the Rough and Ready Dam also, which will include raising the dam, erecting a new building and installing new machinery.—John I. Beggs, President and General Manager, M. E. Railway and Light Company.

**Nelson, B. C., Can.**—Fire destroyed the substation of the West Kootenay Power and Light Company and the municipal power plant conjointly; loss \$50,000; the Electric Tramway Company's plant, leased by the city, was entirely destroyed.

## FIRE EQUIPMENT

**Manchester, Conn.**—The residents of the North End have organized a fire company.—Address Town Clerk.

**Bloomington, Ill.**—Alderman O'Neil of the Fifth Ward has prepared resolution to be presented to Council asking for appropriation for new fire station on the West Side, for increased protection in that section.

**Peoria, Ill.**—Fire Chief O. Connell is in favor of purchasing new aerial truck.

**Hammond, Ind.**—The Board of Public Works is having plans made for a fire station, to be erected in rear of the City Hall; three stories, 50x85 feet, press brick, stone trimmings, composition roof, galvanized iron skylights, structural iron, hardwood finish and floors, gas and electric fixtures, lavatories, water closets and bath tubs; appropriation, \$10,000; Mac Turner, 419 Truman avenue, is making plans.

**Richmond, Ind.**—Council proposes to purchase a fire engine and aerial truck.

**Council Bluffs, Ia.**—Council is considering the matter of purchasing a gasoline fire engine.

**Sioux City, Ia.**—The residents of the North Side have petitioned for new fire engine.

**Boston, Mass.**—The Fire Department is soon to have a new fire station to be located in the Forest Hills district.

**Lowell, Mass.**—Bids are soon to be advertised for the erection of a new engine house in West Centralville, and also for a new school to be located at Highlands.—Harry Prescott Graves, Architect for fire station, and Edwin R. Clark for the school.

**Somerville, Mass.**—Fire Chief Hopkins recommends to Council that new engine and new trucks and chemical engine be placed in commission at a cost of about \$9,100; an order appropriating \$2,500 for new chemical hose wagon was introduced by President Cole.

**Biwabik, Minn.**—The Fire Department has petitioned the Council for 12 rubber coats and hats.

**Kenyon, Minn.**—The Fire Chief has petitioned for additional hose.

**St. Paul, Minn.**—The Fire Board will advertise for bids for a truck and hose cart and engine for fire house being erected at University avenue and St. Albans street.—Address Secretary of the Fire Board.

**St. Louis, Mo.**—Architect James A. Smith will soon start plans for a new engine house and for rebuilding three old two-story engine houses; total cost, \$120,000.

**Newark, N. J.**—Architects J. H. and W. C. Ely are preparing plans for a two-story \$60,000 training stable for the Fire Department.

**Whitesboro, N. Y.**—Contractor Crane has charge of work which is soon to be commenced on new engine house here.—Address Chief of the Fire Department.

**Sherwood, N. D.**—Council is preparing to purchase rubber coats and two small barrel carts for the Fire Department.

**Wyndmere, N. D.**—A fire company is to be organized.

**Coalton, O.**—The Fire Department building has been destroyed by fire.

**Lorain, O.**—The Board of Public Safety has rejected bids for the construction work on No. 7 hose house, and new bids are to be advertised for; cost, about \$20,000.

**Springfield, O.**—By a vote of 8 to 1 the ordinance authorizing the issuing of \$20,000 bonds for the erection and equipment of an engine house in the Highlands was passed by Council.

**Youngstown, O.**—William I. Davies, City Auditor, will open bids June 1 for \$12,000 worth of Fire Department, building and equipment bonds.

**Boyetown, Pa.**—The Keystone Fire Company is considering the erection of a new building and the purchase of a new steam fire engine; it is proposed to erect new structure on South Franklin street.

**Pittsburg, Pa.**—Architects Kiehnel & Elliot are receiving bids for two two-story fire engine houses for the Board of Public Safety; cost, \$30,000 and \$25,000, respectively.

The Board of Public Safety is planning to build several new engine houses and purchase additional fire apparatus.—Address Clerk, Board of Public Safety.

**York, Pa.**—The Union Fire Company will make additions and repairs to its building, to cost \$40,000.

## PUBLIC BUILDINGS

**Hollywood, Cal.**—Plans will soon be submitted for a new City Hall, to be erected as soon as possible.

**San Diego, Cal.**—J. E. Coulthurst is President of the School Board, which is to secure plans and specifications for a new school on Brooklyn Heights, to cost \$15,000, and a new school at Logan Heights, to cost about \$25,000.

**Pueblo, Col.**—Plans have been approved for the new Court House.—Albert R. Ross, 542 Fifth avenue, New York City, Architect.

**New Haven, Conn.**—An additional appropriation of \$44,000 has been asked by the Board of Education for the new Welch District School, at the corner of Prince and Lafayette streets; the Finance Board recently appropriated \$55,000 for this purpose.

**Norwich, Conn.**—The County Commissioners have decided to accept plans for improvements and additions to be made to the Court House on Leavenworth street; a total appropriation of \$80,000 has been granted for the purpose.

**Centralia, Ill.**—The Board of Supervisors are in favor of a special tax to be levied for building new Court House and County Home.

**Chicago, Ill.**—A new jail to replace the old part of the present jail building is recommended by the April Grand Jury in its report to Judge Chetlain.

**Hinsdale, Ill.**—Harry C. Knisely wants estimates for the erection of a \$50,000 high school building.



**Morrison, Ill.**—Architects Hyde & Blood, Sterling, are preparing plans for remodeling school house, at \$18,000.

**Urbana, Ill.**—State Architect W. Carby Zimmerman, Chicago, is preparing plans for a physics laboratory for the University of Illinois, to cost \$250,000; he is also preparing plans for an addition to the Natural History building for the University, to cost \$150,000.

**Kirklin, Ind.**—J. A. Bponstra & Co., Lafayette, have plans completed for a new high school to be of modern construction and cost \$30,000.

**Muncie, Ind.**—Plans have been submitted for a new City Hall, and it is proposed to secure bonds to be issued to the amount of \$125,000 for the purpose; plans call for a large and modern new three-story building.—Address the Mayor.

**Normal City (Muncie P. O.), Ind.**—The Advisory Board has rejected all bids for the proposed school building, and Trustee Lambert will readvertise for bids.

**Louisville, Ky.**—Architects Meyer & Brenner have completed plans for a two-story school building for the State College (colored), to cost \$20,000.

**Portland, Me.**—Architect F. A. Tompson has been commissioned to draw plans for a \$10,000 stable for the city.

**Arlington, Mass.**—At a recent meeting the citizens voted to appropriate \$52,000 for addition to the school facilities in the Locke School District.

**Clinton, Mass.**—Plans are on exhibition in Pierce Block for proposed new Town Hall.

**Douglas, Mass.**—Architect Edwin T. Chapin, Worcester, has plans for a Town Hall, to cost \$25,000.

**Fall River, Mass.**—Architects Louis G. Destremps & Sons are working on plans for a Court House for Bristol County; French Corinthian brick; two stories; cost, \$75,000.

**Northampton, Mass.**—The subcommittee on the new City Hall will report shortly and the new building will be erected on the site of the old structure.

**Westfield, Mass.**—Henry W. Ely is Chairman of the committee appointed at the town meeting to look into the question of erecting a new jail and Court House; a special meeting will soon be called for voting on the project.

**Kalamazoo, Mich.**—Architect John D. Chubb, Chicago, has been retained to make plans for \$85,000 school building for the Board of Education.

**Painesdale, Mich.**—The School Board of Adams township has plans for a high school building; it will be a modern building, costing upward of \$75,000.—F. A. Jeffers, Superintendent.

**Aurora, Mo.**—Architect H. H. Hohenschild, Rolla, Mo., is preparing plans for a two-story \$26,000 high school building, 60x140 feet, for the Board of Education; brick and Carthage or Phenix stone, galvanized iron skylights, hard plaster, structural iron, gas and electric fixtures, water closets, urinals and lavatories.—F. P. Fly, Secretary.

**Frankford, Mo.**—Architect Ernest Schmitt, Hannibal, is preparing plans for a two-story, six-room, \$10,000 school building for the School Board; press brick and Bedford stone, hard plaster, door hangers, corner beads, steam heat and pipe and boiler covering; bids will be received by J. G. Cash, President.

**St. Louis, Mo.**—Plans are being prepared by A. B. Graves, Architect, 314 North Fourth street, St. Louis, for a hospital building, to be erected by the Board of Public Improvements; cost, \$400,000.

**Milligan & Wray, architects, 721 Oliver street, have about completed plans for two five-story wings and an addition to the insane asylum for the Board of Public Improvements; they will cost \$600,000 and \$75,000, respectively.**

**Architects Drischler & Elsner have prepared plans for a three-story wing to the Poor House, to cost \$40,000, for the Board of Public Improvements.—A. J. O'Reilly, President.**

**Chairman Lee, Library Committee, Ninth and Locust streets, will receive sketches for two library buildings, one at Seventh and Souldard streets, and one at Fourteenth and Farrar streets, each to cost \$60,000.**

**Bayonne, N. J.**—An ordinance was passed to appropriate \$160,000 for the erection of a school building on the north side of East Twenty-fifth street, to be known as School No. 9 and to provide for the raising of funds therefor by the issuance of bonds.—Pierre P. Garven, Mayor.

**Bridgeton, N. J.**—The Grand Jury made a supplemental report to the Court recently, saying the Court House was antiquated and insufficient and recommending the erection of a new building; Judge Tuller can be addressed.

**Burlington, N. J.**—Henry A. Brown, city, is preparing plans for a new City Hall, to be brick and stone, two stories high, and modern in every detail.—Mayor C. Taylor Rue, Chairman of Building Commission.

**Mullica Hill, N. J.**—Contract will soon be

awarded for a new school house to be erected by the Board of Education, to be brick and stone and modern construction.

**Point Pleasant, N. J.**—It has been voted to raise \$30,000 for a new high school.—Address the School Board.

**Trenton, N. J.**—Mayor Madden has attached his signature to the ordinance passed by Council authorizing the issue of \$600,000 bonds to provide for the payment of the cost of acquiring lands and for the erection of the contemplated new City Hall.

**Huntington, N. Y.**—Alden & Parker, of Ames Building, Boston, Mass., prepared plans for a large new three-story school, to be brick and fireproof, 70x105 feet in dimensions, and cost \$75,000.

**Seneca Castle, N. Y.**—A site located on property purchased by Edward S. Baker has been selected for a new school; building operations to be commenced this summer.—Address the School Board.

**Elizabeth City, N. C.**—Frank B. Simpson, Raleigh, has prepared plans for a two-story school; cost, \$35,000.

**Cleveland, O.**—As a result of an investigation following the Collinwood school fire, South Newburg is to have a new brick school costing \$4,000; it will be erected on Fisher road.

**Dayton, O.**—A resolution was passed by the County Infirmary Directors declaring the necessity for a \$90,000 bond issue for a new poorhouse; the resolution was transmitted to the County Auditor, and the County Commissioners will authorize a bond issue in the sum desired.

**Dover Center, O.**—Associate Architects H. O. Wurmser and E. F. Elliott, Lorain, have been employed to draw plans for a centralization school at Dover Center; cost, \$25,000.

**East Liverpool, O.**—Bids for the municipal building are being received now by City Clerk Hart, in the office of the Rice Real Estate Company; the city has purchased three lots in Midland avenue, just above the corner of Eighth street, where the building, which will be a brick structure, will be erected.

**Portland, Ore.**—T. B. Yeager, city, has contract for erecting new and modern Court House building, at a cost of about \$100,000.

**Providence, R. I.**—All bids for the erection of the proposed City Hospital have been rejected, and plans and specifications will be modified and altered and new bids will be asked.—Martin & Hall, 806 Union Trust Building, City Architects.

**Loris, S. C.**—The Board of Education wants plans and specifications for a brick school building, to cost not over \$6,000; bonds have been voted.—Address D. D. Hanelson.

**Staunton, Va.**—Plans and specifications will be received for a two-story infirmary building at the Western State Hospital; for further information apply to Dr. J. S. De Jarnette, Superintendent.—W. H. Landes, Director.

**Tekoa, Wash.**—Council has decided on the erection of a new City Hall; building of brick and concrete, and several stories high, 40x23 feet, is planned.

**Shadyside, W. Va.**—The proposition to issue \$39,000 bonds for purchasing a site and erecting a new schoolhouse carried by vote of 64 to 62.

**Milwaukee, Wis.**—Ferry & Clas, architects, 419 Broadway, Milwaukee, for the \$250,000 addition to the Milwaukee Public Library, have announced that the plans will be ready for bids about June 1.

**Milwaukee, Wis.**—The Public Debt Commissioners have authorized the City Comptroller to sell auditorium bonds at private sale.—Address City Comptroller Gawin.

**Onalaska, Wis.**—The La Crosse County Board has voted to erect new Agricultural Institute and work is to be commenced at once; new school, including site and furnishings, etc., will cost \$75,000.

## ELECTRIC RAILWAYS

**Berkeley, Cal.**—Capitalists of this city are considering the advisability of organizing a company to build an electric car line through Gragmont up the Berkeley hills to the top of Grizzly Peak, on a 6 per cent. grade.

**San Bernardino, Cal.**—A. G. Hubbard, Redlands, Cal., representing the Redlands Central Railway, has applied to County Supervisors for a franchise for an electric railway along certain streets. It is proposed to build the line from Redlands to Redlands Junction.

**Alton, Ill.**—Alton, St. Louis & Cairo R. R. Co. has been incorporated and proposes to construct an electric railroad from Alton, through the Counties of Madison and St. Clair to East St. Louis, and from East St. Louis to Cairo, through the Counties of St. Clair, Monroe, Randolph, Jackson, Union and Alexander, with a branch to Columbia, Waterloo and Monmouth Cave, in Monroe County. The incorporators and first Board of Directors are G. L. Renfrow, Dr. C. H. Walters, William L. Ensel, George M. Sintzer and C. B. Meredith, all of Springfield, Ill. The project has been promoted by Colonel

Thomas W. Chase, St. Louis, Mo. The capital stock of the company is \$100,000, and principal office is to be in East St. Louis, Ill.; right of way from Alton to Cairo for the proposed line has been secured.

**Robinson, Ill.**—Terre Haute, Robinson, Olney & Southwestern Ry. Co. has been incorporated and proposes to construct a railroad from a point on the Wabash River on the boundary line between Illinois and Indiana to the city of Jefferson. Capital stock is \$10,000 and principal office is at Robinson. The incorporators and first Board of Directors are: Horace C. Pugh, H. P. Taussig, N. H. Moss, W. H. Cisne, S. C. Wilson, G. H. Parker and F. W. Lewis.

**Evansville, Ind.**—It is stated here that after the Evansville and Eastern Electric Railway is extended from Rockport to Grandview a survey will probably be made to St. Meinrad and, perhaps, later on, the road will be extended to Ferdinand and Huntingburg.

**Indianapolis, Ind.**—The Indianapolis, Cloverdale & Terre Haute Traction Company has been incorporated and proposes to build an electric railway between Indianapolis and Terre Haute, through the counties of Marion, Morgan, Putnam, Clay and Vigo, and serving the following towns and cities: Indianapolis, West Newton, Mooresville, Gasburg, Monrovia, Hall, Eminence, Cloverdale, Polen, Ashville, Brazil and Terre Haute. The capital stock is \$10,000 and the incorporators are: E. B. Bowman, H. T. Butze, Kenlad Veit and Dennis Rutherford, all of Indianapolis, Ind.

**Kokomo, Ind.**—The Kokomo, Frankfort and Terre Haute Traction Company proposes to build an electric line from Kokomo to Terre Haute, 104 miles, Frankfort, Crawfordville, Rochdale, etc. Right of way is now being secured. From Kokomo to Frankfort the electric railway will parallel the Toledo, St. Louis and Western Railroad (steam), and from Frankfort to Rockville and Terre Haute it will parallel the Vandalla Railroad (steam). Dr. Oliver Gard, Frankfort, is President; D. W. Bolen, Indianapolis, is Vice-President. Headquarters are at 411 State Life Building, Indianapolis.

**South Bend, Ind.**—The South Bend and Logansport Railway Company has filed articles of incorporation with the Secretary of State.

**Des Moines, Ia.**—The Red Oak Northeastern Interurban Promotion Company has been organized for the purpose of promoting the construction of an interurban railway from this city to Red Oak, Ia., 107 miles. The officers of the promotion company include: B. B. Clark, Red Oak, Ia., President, and G. W. Curtis, Red Oak, Secretary. The company has \$10,000 capital stock already subscribed to be used for promotion purposes and surveys. As proposed the road will pass through Grant, Greenfield, Stuart, Redfield, Adel and Waukee.—F. W. Cherry, Des Moines, Ia., is interested.

**Hamilton, Ia.**—Surveys have been made for the proposed Chicago, Ottumwa and Western Railway, which will run from Hamilton to Marysville and Dallas, Ia., twenty-five miles.—A. A. McGarry, President; John A. Nelson, Chief Engineer.

**Sioux City, Ia.**—Council has adopted a resolution ordering a special election to be held on May 28, at which the voters of Sioux City will grant or reject the street franchise of the Sioux City Traction Company.

**Salina, Kan.**—The Street Railway Company proposes to purchase more poles for street car line.—J. E. Williams, President.

**Manchester, Ky.**—The Manchester Traction Company has been organized to build an electric line between Manchester and Barbourville, Ky., a distance of 25 miles.—Louis des Cognets, Lexington, President.

**Biddeford, Me.**—The Biddeford Pool Electric Railway Company has completed surveys and will let the contract soon for building its proposed line from Biddeford to Biddeford Pool, a distance of about 5 miles.—Charles W. Moses, President, Biddeford; George W. Getchell, Chief Engineer, Augusta.

**Marquette, Mich.**—The Marquette County Gas and Electric Company will build an extension 13 miles long, from Negaunee to Marquette. Surveys are under way. The railway is now five miles long, connecting Negaunee and Ishpeming, Mich.—W. J. McCorkingdale, General Manager, Ishpeming; A. L. Drum & Co., American Trust Building, Chicago, Consulting Engineers.

The Marquette, Negaunee and Ishpeming Interurban Railway Company, which will build an electric railway to connect these cities, is making active plans for beginning construction work. The line will be about 15 miles long; capital, \$375,000.—L. M. Sigler, Cleveland, O., President; J. W. Barber, Cleveland, Secretary; the Roberts & Abbott Company, Schofield Building, Cleveland, Engineers.

**St. Louis, Mo.**—W. C. Dines of the Citizens' Investment Co., 510 Pine street, St. Louis, desires to secure the assistance of one or two railroad contractors in connection with the construction of an electric railroad in this vicinity.

**St. Louis, Mo.**—The Hillsboro, Kimmswick & Northern Railway Company has applied for a franchise to construct a single or double track line through certain streets and alleys in the southwestern part of the city, with a terminus at Ivory avenue and Broadway, together with the right to build a bridge across Rives des Peres. This movement is a part of the general scheme to connect Crystal City, about ten miles south of St. Louis, by an electric line with the United Railways Company's line in South St. Louis.

**Newark, N. J.**—At an early date the Public Service Railway Company, which owns the various trolley lines in North Jersey formerly owned by the Public Service Corporation, will authorize an issue of \$25,000,000 5 per cent. gold bonds, the proceeds to be used for the reconstruction of existing lines, new equipment, such as the general installation of pay-as-you-enter cars, etc.

**Ithaca, N. Y.**—Ithaca Street Railway Company has applied for franchise to double-track State and Tioga streets.

**Goldsboro, N. C.**—The Board of Aldermen has passed an ordinance granting a street railway franchise to E. T. Oliver and associates. The line is to be two miles long.

**Grand Forks, N. D.**—The construction of a street railway system is proposed by local capital; the Commercial Club is interested.

**Defiance, O.**—Work is to be started soon, it is stated, on the construction of the Northwestern Ohio Electric Railway. The project has been under consideration for some time. The road is to connect this place and Montpelier.—Colonel H. C. Bell, Toledo, O., is interested.

**Warren, O.**—Right of way between Cortland and Warren is being secured for an electric railway.—General Asa Jones, Burg-hill, O., is interested.

**Albany, Ore.**—Oregon Electric Railway Co., Portland, Oregon, according to advices from this city, will soon extend its line from Salem to Albany, and will also build a 45-mile branch from the latter city to Cascadia.

**Pendleton, Ore.**—Preliminary surveys are stated to have been made for an electric railway from Pendleton to Irrigan.—Dr. H. W. Coe, Portland, Ore., and R. R. Wood, Echo, Ore., are interested.

**Portland, Ore.**—F. B. Holbrook Company has applied for franchise for single track electric railway on several streets. Proposed line would be about six blocks and would furnish transportation means to residents of Irvington Park.

**Weston, Ore.**—Walla Walla Traction Company has been granted franchise to operate an electric railway through Main street on its projected line into Milton.

**Dauphin, Pa.**—Malcolm G. Stewart and Edgar D. Rank are organizing a company to be called the Schuylkill and Dauphin Traction Company, to build an electric line in Lykens Valley.

**Pottsville, Pa.**—The State has been asked for a charter for the proposed trolley company which will connect the more important towns in the Lykens Valley and Western Schuylkill. The line will be known as the Schuylkill and Dauphin Traction Company. The incorporators are: J. W. Moyer, Pottsville; E. D. Rank, M. G. Stewart, L. H. Shappell and N. D. Yoder.

**Aberdeen, S. D.**—J. A. Clever of Houston has petitioned for franchise to operate an electric road from Huron to Aberdeen.

**Huron, S. D.**—The Huron Gas and Electric Railway Company has let a contract for the survey of its proposed line from Huron to Aberdeen to Cross & Mack, Civil Engineers of Minneapolis, Minn. The line has already been decided upon between Huron and a point in Spink County, about midway between Lake Byron and Dolan, from which place the contractors will survey into Aberdeen. Immediately following this, the right-of-way men will secure privileges along the line, and as people in this city and Aberdeen and at intermediate points become interested in the enterprise, it is thought that no serious difficulty will be encountered in the right-of-way. Huron is becoming much interested and will give every encouragement possible to the enterprise.

**San Angelo, Tex.**—A company capitalized at \$100,000 has been organized here for the purpose of building a street electric railway in San Angelo, and the company is ready to begin work as soon as a franchise can be obtained from the city; some of those who are interested in the enterprise are: E. E. Bailey, Attorney R. Wilbur Brown and Attorney W. T. Bartholomew.

**Astotin, Wash.**—Frank McKean, C. E., has completed surveys in Deadman County for the Idaho, Washington and Oregon Electric Railway.

**Seattle, Wash.**—Seattle Electric Company has applied for a franchise to extend its Alki Point line from its present terminus to a point half a mile south of Alki Point.

A franchise has been granted by the County Commissioners to F. X. Waldron & Co., of Seattle, for the construction of an electric railway and lighting system on Vashon Island. The road will be 12½ miles long.

Final surveys have been completed. Grading will be started at once. It is planned to have the line completed by June 1, 1909, the date of the opening of the Alaska-Yukon-Pacific exposition. The plans include two fast ferry boats, one running to the north end of the island from Seattle and the other to the south end from Tacoma, Wash. The power-house and electric light plant probably will be located at Lisabeula. The franchise states that the line must be started within ninety days from the date of the grant, be completed as far as Burton within two years and be entirely completed within five years.

**Piedmont, W. Va.**—Town Council has granted a 50-year franchise to the Potomac Railway Company to operate an electric railway through Piedmont, to pass through Luke, Md., West Virginia Junction, W. Va., to Bloomington, Md. Later it will be extended five miles to the east, connecting these towns with Keyser, county seat of Mineral County.

**Wheeling, W. Va.**—Wheeling Traction Company is considering extending its lines to Dillonville, O.

**Janesville, Wis.**—Chief Engineer Joseph Ellis of the proposed Janesville-Madison inter-urban road began actual operations, when his surveying party started work at the corner of Main and Milwaukee streets and began the running of the transit from this city to Madison, via Edgerton, Stoughton, Lake Kegonsa, Lake Waubesa and South Madison.

**Edmonton, Alta, Can.**—Council has decided that a municipal street railway is too big a venture for the city under the present financial conditions; franchise probably will be given to a company to construct a system.

## BRIDGES

**Los Angeles, Cal.**—Plans and specifications for the construction of the following bridges have been adopted by the Board of Supervisors: A 100-foot trestle over the Los Angeles River at State street; a 225-foot bridge over the San Gabriel River at Center street; a 175-foot bridge over the same river at Norwalk, and a 350-foot bridge over the San Gabriel River, between Elftman Station and Long Beach.

**Killingly, Conn.**—The Town Board has appropriated \$2,000 towards building a bridge over the Quinebaug River.—Frank T. Preston, Clerk.

**Washington, D. C.**—The Chief of the Corps of Engineers has approved the plans of the Engineer in charge of the improvement of the Potomac River, for constructing a reinforced concrete bridge across the inlet to the tidal reservoir; estimated cost, \$105,000.

**Augusta, Ga.**—The city is considering putting steel draw span in present Centre street bridge.—Nisbet Wingfield, Commissioner Public Works.

**Belvidere, Ill.**—Engineer Older of the State Highway Commission recommends that a \$40,000 concrete structure replace the present Main street bridge.—Address Mayor.

**Edwardsville, Ill.**—The bridge between Godfrey and Forestburg townships has been condemned.—Address County Auditor.

**Otterville, Ill.**—The iron bridge over Otter Creek, near this place, has been destroyed by flood; several other bridges were damaged.—Address County Auditor, Jerseyville.

**Mason City, Ia.**—County Commissioners are to have plans made for a concrete arch bridge to be erected over Willow Creek on South Main street; bridge will cost \$20,000.

**Terre Haute, Ind.**—County Commissioners have appropriated \$4,500 for constructing bridge over Otter Creek, near Ellsworth.

**Bar Harbor, Me.**—Surveys have been made by Edgar I. Lord, C. E., Bar Harbor, for a bridge to Bar Island, and W. E. Baker & Co., Engineers, New York City, are preparing designs for a stone structure. As proposed, the bridge will be 1,800 feet long and will cost about \$35,000.

**Saginaw, West Side, Mich.**—United States War Department has approved plans of John W. Ederer, County Road Commissioner, for a bridge over the Tottabawassee River on the Gratiot road.

**Crookston, Minn.**—Street and Bridge Committee, Tom Harris, Chairman, is considering site for the proposed new Sampson's addition bridge.

**Watab, Minn.**—The Town Clerk is reported to be calling for bids for constructing 70 feet long, 16 feet wide, steel bridge over Little Rock Creek. Bridge piers will be 20 feet high, of concrete or stone.

**St. Louis, Mo.**—President A. J. O'Reilly of the Board of Public Improvements, has received the plans for a west approach of the free bridge at Chouteau avenue; the east approach plans are practically completed also; a preliminary plan for the War Department will also be ready in a short time and will show the bridge with three spans, each 580 feet long, balanced on four principal abutments, two in the river and one on each bank.

**Plainfield, N. J.**—The matter of the Culver

street bridge, Somerville, was laid over until a subsequent meeting by the Board of Freeholders. It was decided to build a new bridge at Harry's Hill on the Pluckemin road, with concrete or stone walls, 12x14 feet, concrete floor.

A communication was received from the Standard Paint Works at Bound Brook in reference to the condition of the iron bridge in that place, and Peter Smith, Andrew Lutkins, Joel Codington, Joseph Fitzga and Edward B. Hoagland, with the Director and Engineer Doughty, were appointed as a committee to examine the bridge, with power to employ a competent and disinterested engineer to report to the Board of Freeholders.

**Trenton, N. J.**—The Legislature has authorized the Board of Freeholders of Hudson County to rebuild the bridge over the Hackensack.

**Cambridge, O.**—County Commissioners are considering raising bridges over a run between Forsythe and Old Orchard mines.

**Cincinnati, O.**—County Engineer Miller will prepare plans for a bridge across Bowman Creek.

**Marietta, O.**—The Washington County Commissioners have decided to build bridges in Culter, Decatur and Belpre Townships this summer.—Arthur F. Cole, Washington County Surveyor.

**Springfield, O.**—Without a dissenting vote an ordinance was passed by Council authorizing the issuance of bonds to the amount of \$40,000 for the erection of a bridge over Buck Creek at the intersection of Nelson and Sherman avenue.—M. J. Baker, City Engineer.

**Pauls Valley, Okla.**—The Commissioners' Court has asked for bids on erection of a steel bridge across the Washita River, between here and Kiser, to take the place of the one burned a year ago last fall; the new structure is expected to cost about \$2,500.—Address Garrin County Auditor.

**Erie, Pa.**—Council has passed the Barber ordinance, authorizing a bond issue of \$10,000 for constructing concrete arch culverts over Mill Creek at Second and Third streets.

**Dallas, Tex.**—The Commissioners' Court was called in session to take up the matter of repairing and rebuilding the bridges damaged and washed away in Johnson County during the recent floods; Commissioner Humphreys stated that thirty-five bridges had been damaged or washed away, but most of them were wooden structures, only one being constructed of steel; arrangements are being made to rebuild the bridges right away.

**Spokane, Wash.**—Council and the Railway Commissioners are considering the advisability of a steel or concrete bridge across the north channel of river at Howard street.—J. C. Ralston, City Engineer.

**Appleton, Wis.**—The Outagamie County Board will make appropriations for five new county bridges.—Mr. Raisler, County Clerk.

**Superior, Wis.**—Wisconsin and Minnesota Bridge Company has been incorporated and proposes to construct a bridge over the St. Louis River. Headquarters of the company are to be in Superior and capital stock is \$100,000. The incorporators are Louis K. Luse, Lyman T. Powell and Claude Z. Luse.

## MISCELLANEOUS

**Anniston, Ala.**—Bids will be received May 28, noon by the City Clerk for \$50,000 public improvement bonds.—Thomas E. Kilby, Mayor.

**Berkeley, Cal.**—It has been recommended that site in West Berkeley be purchased for the erection of a new and modern garbage disposal plant; address President of the Chamber of Commerce.

**Portland, Me.**—A petition is in circulation for the condemnation of the central fire station square for park purposes and the erection of the new fire station and City Hall building in Lincoln Park; Clarence W. Peabody can be addressed for further information.

**Baltimore, Md.**—The Park Board has purchased a portion of the Patterson estate in Northeast Baltimore to be used for a new park.

**Ithaca, N. Y.**—The Creek Drainage and Park Commission can be addressed regarding improvements which are to be made to the parks throughout the city.

**Cleveland, O.**—N. W. Harris & Co. have purchased \$225,000 municipal bonds at \$227,655.

**East Liverpool, O.**—N. H. Harker is Chairman of a special Citizens' Committee which has been authorized by Council to secure the services of an experienced Engineer for the investigation of an East Liverpool water front.—N. A. Frederick is Secretary of the Citizens' Committee.

**Massillon, O.**—Rogers & Sons of Chagrin Falls, have purchased \$45,000 city bonds at \$46,207.75.

**Johnstown, Pa.**—An ordinance has passed providing for a loan of \$85,000 for dredging and cleaning the channel of the Conemaugh River at its junction with the Stony Creek



River, and extending the wall from the end of the present wall northward to the stone bridge of the Pennsylvania Railroad Company.—George E. Hamilton, City Clerk.

**Scranton, Pa.**—The special committees of three each from Common and Select Councils have decided to adopt and present to Councils three ordinances, embodying an outlay of \$100,000 for a municipal garbage disposal plant, \$25,000 for the city's share in the paving of street intersections and \$25,000 for the erection of new fire houses on lots already owned by the city.

**Shenandoah, Pa.**—Citizens are interested in project which is under way for the establishment of a handsome new park to be known as Columbia Park.

**Austin, Tex.**—The Railroad Commission has authorized the Fort Worth and Denver Terminal Company to issue \$650,000 bonds.

**El Paso, Tex.**—The taxpayers recently voted in favor of \$500,000 bonds for sewage and garbage disposal plants, paving residence streets, grading streets and alleys, and erecting public schools.

**Galveston, Tex.**—The citizens have voted in favor of issuing \$450,000 public improvement bonds.

**Graham, Va.**—Bids will be received May 25 for the purchase of \$20,000 5 per cent., 34-year improvement bonds.—J. M. Smith, Mayor.

**Odessa, Wash.**—Bids will be received May 18 for the purchase of \$20,000 6 per cent., 20-year city bonds.—Address W. M. Nevins, City Clerk.

**Milwaukee, Wis.**—Plans are completed by Expert Rudolph Hering of New York City for new garbage disposal plant to contain the largest furnace in the world.

**Superior, Wis.**—Phil H. Perkins is member of the Wisconsin Board of Interstate Park Commissioners, which is planning one of the most beautiful parks in the country at St. Croix.

## BIDS RECEIVED

**Slocumb, Ala.**—J. B. McCrary & Co., Empire Building, Atlanta, Ga., have been awarded contract to construct the proposed municipal electric light plant, at \$6,000.

**Eureka, Cal.**—Bids have been received by the Board of Supervisors for constructing steel highway bridge across Salt River at Arlyanda, as follows: F. H. Green and Bert Moore, \$12,800; Frank Smith, \$9,550; Wm. G. Mohn, \$10,268; San Francisco Bridge Company, \$10,487; Mervy-Elwell Company, \$9,375; Mercer-Fraser Company, \$9,999; Pacific Construction Company, \$9,367 (awarded contract).

**Oakland, Cal.**—Contracts have been awarded as follows:

J. F. Pullen: For grading Fortieth street, including sidewalk (cutting), 2 cents per square foot; macadamizing, 7.4 cents per square foot; curbing with redwood, 15 cents per lineal foot; gutters, grouted, broken rock, 1 3/4 cents per square foot; concrete culverts, 6x30 inches, \$2.60 per lineal foot; wooden bridges, \$5 each.

Louis Lima & Co.: For furnishing and laying 8-inch pipe on Hopkins street, at 95 cents per lineal foot; furnishing and laying "Y" branches, at 70 cents each extra; constructing brick manhole, with cover, complete, \$48.

J. W. Lindberg: For furnishing and laying 8-inch pipe on Sixteenth street, at \$1.25 per lineal foot; furnishing and laying 5-inch "Y" branches at 75 cents each extra; constructing brick manhole, with cover, complete, \$55.

Michael Murphy: For furnishing and laying 12-inch pipe on Eighteenth street, at 90 cents per lineal foot; furnishing and laying 8-inch pipe, at 90 cents per lineal foot; furnishing and laying "Y" branches, nothing; constructing brick manholes, with covers, complete, \$35 each; constructing catch basin, \$35.

Ransome Construction Co.: For grading Twenty-ninth street, including sidewalk (cutting), 52 cents per cubic yard; macadamizing, 7 cents per square foot; curbing with redwood, 12 cents per lineal foot; intakes, \$20 each; gutters, grouted, 10 cents per square foot; 10-inch conduit, 60 cents per lineal foot; 12-inch conduit, 65 cents per lineal foot; also for grading Forty-seventh street, including sidewalk (cutting), 36 cents per cubic yard; macadamizing, 7 1/2 cents per square foot; curbing with redwood, 12 cents per lineal foot; gutters, concrete, 13 cents per square foot, and for laying cement sidewalks on Adeline street, at 50 cents per square yard.

J. W. Lindberg: For cement sidewalk on Forty-ninth street, at 17 cents per square foot.—Frank R. Thompson, City Clerk.

**San Francisco, Cal.**—The Board of Works has awarded the following contracts for heating and ventilating systems in the schools: Washington Grammar, \$10,000; Abrahamson & Degear, Monroe, \$10,340; J. G. Sutton & Co.; Laguna Honda, \$10,740; J. G. Sutton & Co., and for the outside lathing of the Yerba Buena School, \$1,900, to J. J. Conley.

Sewer contracts were awarded as follows:

To Williams & Belser, Twenty-fourth street, between Diamond and Castro, \$13,463.99; Fremont street, between Market and Mission, \$1,549.26; First street, between Market and Mission, \$2,164.50; to Fred Loeffler, on Stuart street, between Mission and Howard, \$2,225, and Spear street, between Market and Mission, \$1,867.40.

**Danbury, Conn.**—The Public Works Committee of Council opened bids for construction of sewers as follows: Main and South street sewer, Charles Ippolito, Orange, N. J., \$22,302; Pearson Engineering and Construction Company, Bristol, \$20,215; Long & Little, Waterbury, \$21,562; Alfred L. Davis, Danbury, \$16,870; Peter Sweeney, Danbury, \$13,055. Pleasant street sewer: Charles Ippolito, \$4,513; Pearson Engineering and Construction Company, \$5,791.80; Long & Little, \$4,886; W. A. White, Danbury, \$5,511; A. L. Davis, \$4,050; Peter Sweeney, \$3,598; Cowin & Co., \$3,517. Town Hill avenue sewer: Charles Ippolito, \$3,463; Pearson Engineering and Construction Company, \$3,440; Long & Little, \$5,015; W. A. White, \$4,574; A. L. Davis, \$3,702; Peter Sweeney, \$2,992; Cowin & Co., \$3,550. Lake avenue surface water sewer: Peter Sweeney, \$3,584; Cowin & Hill, \$3,113; Benjamin & Co., \$3,331.—John J. Hill, Chairman.

**New Haven, Conn.**—Director of Public Works Foley and City Engineer Kelly opened bids for several sewers and awarded the contracts to the lowest bidders; in one instance two firms bid low and the award will be made later. The list of bids and the list of awards follows:

Hazel street, from Dixwell avenue to the Northampton Railroad: The Ryan-Unmack Company, \$801 (awarded); Dwyer & Mannix, \$912; J. B. Withby, \$990; Thomas F. Maher, \$927.

Scranton street, from Sherman avenue to Auburn street: Thomas F. Maher, \$222.50 (awarded); Ryan-Unmack Company, \$245; Dwyer & Mannix, \$275; J. B. Withby, \$237.50. Ellsworth avenue, from Derby avenue to Irving street: The Ryan-Unmack Company, \$835 (awarded); J. B. Withby, \$1,090; Dwyer & Mannix, \$1,086.

Gilbert avenue, from Orchard street to Green street: Dwyer & Mannix, \$501 (awarded); Thomas F. Maher, \$530; J. B. Withby, \$545.50; Ryan-Unmack Company, \$553.

Main street, from Castle street to the old Shore Line Railroad: Dwyer & Mannix, \$1,210 (awarded); Ryan-Unmack Company, \$1,271; J. B. Withby, \$1,465; Thomas F. Maher, \$10,245.

Division street, from Shelton avenue to the Northampton Railroad: Dwyer & Mannix and Thomas F. Maher both bid \$485; Ryan-Unmack Company, \$502.50; J. B. Withby, \$570.50.

**Hartford, Conn.**—The Board of Contract and Supply opened the following bids for the resetting of curb on Asylum and intersecting streets: A. Danielson & Co., \$3.24; Billings Sidewalk and Coal Company, \$3; Alexander Watson, \$3; A. S. Freeburg, \$3.

**Shelton, Conn.**—The following bids were received for the construction of sewers: P. Madorno, \$12,621.55; Eveline Bros., \$15,285.40; Ed. Tracy, \$11,948.50; J. B. O'Rourke, \$18,747; F. B. and W. H. O'Neil, \$11,902; F. Brault, \$15,627.90; A. N. Cusock, \$15,570; Dwyer & Manox, \$13,204.75; Ryan & Minnock, \$14,088.25. The items of the successful bidder, F. B. and W. H. O'Neil, Hartford, Conn., were: 640 feet 15-inch vitrified pipe, 10 feet deep, \$1.39; 1,750 feet 12-inch pipe, 9 feet deep, \$1; 170 feet 27-inch pipe, 10 feet deep, \$3.25; 700 feet 42-inch pipe, 15 feet deep, \$7; 440 feet 30-inch brick, 10 feet deep, \$4.75; 525 feet 9-inch vitrified pipe, 8 feet deep, 95 cents; 48 feet 36-inch cast iron pipe at \$6; manholes, \$30.—D. E. Brinsmore, Borough Engineer.

**Waterbury, Conn.**—Bids for paving North Main, South Main, Benedict, East Farm streets and Hamilton avenue were received by the Board of Commissioners of Public Works as follows: For paving East Farm street, from North Main street to Round Hill street: Henry Keller, Metropolitan brick, per square yard, \$3; Shawmut shale, \$2.96; Edward McManus, Waterbury, \$3.12 1/2. Reynoldsville brick: Henry Keller, \$2.94; Edward McManus, \$3.12 1/2. Mack block: Henry Keller, \$3.08; Edward McManus, \$3.12 1/2. F. T. Ley Company, \$3.08; Hassam Paving Company, \$3.25. Johnsonburg block: Henry Keller, \$3; Edward McManus, \$3.12 1/2; F. T. Ley Company, \$3.05; Hassam Paving Company, \$3.35. Granite blocks: Henry Keller, \$2.90; Edward McManus, \$3.30. Shawmut Finday blocks: Edward McManus, \$3.12 1/2; Hassam Paving Company, \$3.23. Canton shale metropolitan blocks: Edward McManus, \$3.12 1/2. Bluestone curbing, per lineal foot: Henry Keller, 90 cents; Edward McManus, \$1; F. T. Ley Company, 65 cents; Hassam Paving Company, 80 cents. Resetting curb, per lineal foot: Henry Keller, 25 cents; Edward McManus, 12 1/2 cents; F. T. Ley Company, 20 cents; Hassam Paving Company, 15 cents; all the Hassam bids are for pavements with Hassam foundation.

Paving South Main street, from the present pavement to City Corners, Hamilton avenue, from East Main street to the Mad River; Benedict street, from Clay to Jewelry streets, and North Main street, from West Farm to Tudor streets: John F. Kerwin, New Brunswick, N. J., Johnsonburg shale block, \$2.75 per square yard; Mack block, No. 1, \$2.73; Shawmut shale, \$2.63; Reynoldsville block, \$2.66; Shawmut fire clay blocks, \$2.74; curbing, 60 cents per lineal foot; resetting curb, 15 cents per lineal foot; Fred T. Ley Company, Inc., Johnsonburg blocks, \$2.94; Mack blocks, \$2.97; curbing, 65 cents per lineal foot; resetting curb, 20 cents per lineal foot; Hassam Paving Company, Hassam paving, \$1.90; Johnsonburg block with Hassam foundation, \$3.30; Mack block with Hassam foundation, \$3.30; Shawmut blocks with Hassam foundation, \$3.18; curbing, 80 cents per lineal foot; resetting curb, 15 cents per lineal foot.

**Washington, D. C.**—Bids were received for paving First street, northeast, between H street and New York avenue, with granite blocks, and the contract was awarded P. J. Brennan Construction Company, at \$12,660; the details of the bids follow: (a) W. F. Brenner Company, Washington, (b) R. J. Beall Construction Company, Washington, (c) Cranford Paving Company, Washington, (d) Brennan Construction Company, Washington; laying 6-inch concrete base, 9,000 square yards, (a) 70 cents, (b) 73 cents, (c) 60 cents, (d) 59 cents; laying 6-inch gravel base, 500 square yards, (a) 25 cents, (b) 20 cents, (c) 27 cents, (d) 20 cents; cleaning and laying granite block paving, (a) 58 cents, (b) 57 cents, (c) 65 cents, (d) 60 cents; relaying granite block paving, 500 square yards, (a) 50 cents, (b) 50 cents, (c) 45 cents, (d) 50 cents; trim grading and rolling, 10,000 square yards, (a) 10 cents, (b) 10 cents, (c) 9 cents, (d) 10 cents.

Bids were received as follows on May 2 at the office of Elliott Woods, Superintendent of the United States Capitol, for furnishing quantity of electric fans for the new House Office Building: National Electric Supply Co., 1330 New York avenue, Washington, \$11.75, \$8.10, \$8.40; E. F. Brooks Company, Washington, \$10.50; M. Du Perow, 518 Tenth street, N. W., Washington, \$10.60, \$10.17; Western Electric Company, New York, \$10.50; H. C. Roberts Electric Supply Company, Philadelphia, \$11.40; Sprague Electric Company, New York, \$9.85; Manhattan Electric Supply Company, New York, \$11.50; John R. Galloway, 525 Tenth street, N. W., Washington, \$8; Southern Electric Company, Baltimore, Md., \$11.10; W. R. Ostrander & Co., New York, \$9.83.

**Collinsville, Ill.**—Bids were received by the Board of Local Improvements for the construction of (a) water works extension, (b) septic tank: Charles A. Stookey, Belleville, Ill., (a) \$14,750; T. C. Brooks & Sons, Jackson, Mich., (a) \$13,620; H. E. Ross, Duquoin, Ill., (a) \$16,850, (b) \$5,287; Peter Johnson & Co., (a) \$15,521, (b) \$4,526 (awarded contract); Ora T. Dunlap, Edwardsville, Ill., (a) \$17,051; H. C. Gass, Belleville, Ill., (b) \$5,795.—A. C. Powell, City Engineer.

**Joliet, Ill.**—The contract for the construction of the Seventh Ward sewer system was awarded by the Board of Local Improvements to Monahan Bros. at \$13,741. William Moran bid \$13,791 for this work. Monahan Bros. were also awarded contract for construction of a water system for the Seventh Ward at \$6,859; William Moran bid \$7,179.—Hubert A. Stevens, City Engineer.

**Marion, Ill.**—The following bids were received April 30 for street paving: R. E. Townsend, Marion, \$34,190.50; Interurban Construction Company, Danville, \$35,121.60; Collins & Manner, Vernon, Ill., \$35,981.50; R. E. McCann, Herrin \$37,123; A. F. Franks, Jacksonville, \$37,606; H. C. Gars, Belleville, \$39,925.30. The items of the successful bidder, R. G. Townsend, were: For 17,600 square yards brick pavement, 4 inches thick, on 1:3:6 concrete base, 6 inches thick, \$1.62; 5,690 cubic yards excavation, 35 cents.—F. G. Hoffman, City Engineer.

**Watseka, Ill.**—M. Caproni, Chicago, submitted low bid to the East Side Sewer Commission of Council for the construction of the East Side sewer, 5,000 feet long, at \$5,400.

**Bloomington, Ind.**—James Smith has been awarded contract for macadamizing West Howe street and laying cement sidewalks from Madison to Walker streets, at \$12,600.

**Elkhart, Ind.**—The following bids were received by the Board of Public Works for paving South Main street: W. W. Hatch & Sons Company, of Goshen, Ind., for Metropolitan block, \$44,674, Logan block, \$45,084; C. L. Kinney, of Frankfort, Ind., \$45,549 for Metropolitan block, \$44,321 for Logan block. Both bids were rejected; Engineer's estimate is \$40,089.

**Kokomo, Ind.**—James Watson was awarded the contract for paving Smith street, from Jefferson to North street, at \$15,125 for Culver block.

**Leavenworth, Kan.**—Contract was awarded May 4 to O. C. Chapin, Leavenworth, for 4,000 square yards brick paving, 4 inches thick, 4-inch cement base, \$1.31; 1,800 cubic yards excavation, 35 cents; also 2,000 yards brick, 2 course on 5½ inches sand, \$1.30; excavation 600 cubic yards, 35 cents; sand filler in bricks. A contract was also awarded to I. Nicholson for 2,000 linear feet limestone curbing, 5x20, at 46½ cents.

**Topeka, Kan.**—The Kansas Engineering Company were awarded a contract for a 125-h.p. engine for the School for Feeble-Minded Youth for \$1,510. The contract for the 75-kw. generator was awarded to the B. R. Electric and Telephone Manufacturing Company, of Kansas City, Mo., for \$1,253.—F. W. Knapp, Secretary, Board of Control.

**New Orleans, La.**—The only bid received on April 27 by the city for repairing the Bayou St. John bridge at Esplanade avenue was that of the Penn Bridge Company, Beaver Falls, Pa., at \$29,400.

**Annapolis, Md.**—The following bids were received May 1 for the Baltimore-Washington Road Improvement: Fisher, Riley & Carozza, \$18,338; McDowell & Brown, \$19,206.80; W. H. Claquett, \$19,335.44; Thomas Straine, \$41,332; Berghaus & Moffitt, \$43,116.69; Roland Park Company, \$44,708.59; Fisher, Riley & Carozza, \$48,589.48; Fisher, Riley & Carozza, \$16,592.48; McDowell & Brown, \$18,263; C. C. Magruder, \$20,299.30. Contracts were awarded to Fisher, Riley & Carozza for Sec. 8B for 12,911 square yards macadam, 6 inches and 8 inches thick, for 99 cents and \$1.30; 6,600 cubic yards excavation, 50 cents. Thomas Straine, Sec. 9, 22,686, 92 cents and \$1; 14,000 cubic yards excavation, 50 cents. Fisher, Riley & Carozza, 13,067, 90 cents and \$1.20; 6,800 cubic yards excavation, 50 cents.—M. B. Crosby, Chief Engineer.

**Boston, Mass.**—Mayor Hibbard has ordered the Board of Consumptives' Hospital Trustees to advertise for bids for heating and ventilating plant at the new hospital at Mattapan. The Trustees decided to give the contract to the Cleghorn Company at \$23,625, although Pierce & Cox were the lowest, bidding \$22,990. John E. Potts, whose term as a member of the Board of Trustees just expired, was instrumental in selecting the Cleghorn company, declaring that it was a strictly union establishment.

**Lynn, Mass.**—John W. Sheehan, city, has been awarded contract for laying granolithic sidewalks, curbs and gutters for the year at 17½ cents per square foot for sidewalks with a 16-inch excavation, and 18 cents per square foot with a 20-inch excavation; 70 cents per linear foot for straight curb and 80 cents per linear foot for curved curb; 54 cents per linear foot for gutters 3 feet wide and 20 cents per square foot for driveways.

**Springfield, Mass.**—The Board of Public Works awarded the contract for the construction of the sewer from Walnut to Front streets to the Byrne Contracting Company, Boston, at \$2.40 per foot.

**St. Paul, Minn.**—The County Board awarded contracts for macadamizing Lexington avenue, Edgerton street and the New Brighton road and graveling the Upper Afton road. The awards are as follows: Lexington avenue, William Devine, \$18,825; Edgerton street, James F. Forestal, \$16,442; New Brighton road, William Devine, \$6,375; Upper Afton road, James F. Forestal, \$2,572. The contracts were awarded with the understanding that the gravel is to be furnished by the county from pits designated by the Board.

**Prentiss, Miss.**—P. H. Porter has been awarded contract for the construction of water works, including power house and pumping plant, at \$12,213.—George W. Clough, Engineer.

**Farmington, Mo.**—A contract for the construction of a municipal electric light plant was secured by the Commercial Electrical Supply Co., St. Louis, Mo., the price for the plant complete being \$23,120.—Thomas B. Carter, Engineer-in-Charge.

**Helena, Mont.**—The County Commissioners have let contracts for the repairing of the Trout Creek and Craig bridges, which were damaged by the Hauserlake dam flood. The Minneapolis Steel and Bridge Company will repair the Trout Creek bridge at a cost of \$8,585, and the O. E. Peppard Company of Missoula the Craig bridge at a cost of \$1,010.

**Atlantic City, N. J.**—The Standard Bitulithic Company, Newark, N. J., was awarded the contract for paving South Carolina and Virginia avenues with bitulithic, at \$37,888; the only other bidder was the Atlantic Bitulithic Company, at about \$40,000.

The Delaware River Quarry and Construction Company secured the contract for furnishing broken stone, at \$1.70 per short ton.

**Camden, N. J.**—The Barber Asphalt Paving Company, Pittsburg, was awarded the contract on April 27 by the city for paving Walnut street, between Fourth and Broadway and Newton and Seventh streets, with asphalt, at \$1.69 per square yard.

**Plainfield, N. J.**—The Somerset Board of Freeholders has received bids for the culvert bridge over Somerset street, near the Arling-

ton Hotel, in North Plainfield, as follows: Arthur E. Smith, \$12 a cubic yard complete; Schuyler & Allgair, \$8.75; F. G. Sutton, \$9.90; J. W. Scott, \$8.35; W. T. Kirk Company, \$8.40. Mr. Scott, the low bidder, stated that he could not build the bridge within six weeks, and the present structure being in a dangerous condition, the contract will be awarded to the W. T. Kirk Company.

**Albany, N. Y.**—State Engineer and Surveyor Skene to-day received bids for three proposed improved highways, under the \$50,000,000 bond issue act, two in Cayuga County and the other in Herkimer County; bids follow: Fleming road, No. 384, Cayuga County, M. F. Dollard of Albany, \$13,579.80; Auburn-Seneca Falls, No. 590, Cayuga County, F. T. Lay & Co. of Springfield, Mass., \$55,000; Little Falls-East Creek, No. 456, Herkimer County, Joseph Walker of New Paltz, \$24,500.

**Buffalo, N. Y.**—The following contracts have been awarded by the Commissioner of Public Works: For paving Atlantic avenue, 26 feet wide, with German Rock Asphalt and Cement Company's standard asphalt (Specifications "B") on concrete base, to the German Rock Asphalt and Cement Company, at \$6,586; for paving Carroll street, 26 feet wide, with round edge shale brick, to F. V. E. Bardol, D. S. Morgan Building, Buffalo, at \$6,200; for repaving Louisiana street, 42 feet wide, with dressed block Medina sandstone (Specification "B"), same, at \$11,900; for repaving Exchange street, from Hamburg street to the Indian Reservation line, same; for repaving Metcalf street, 28 feet wide, with dressed block Medina sandstone (Specifications "B"), same, at \$6,400; for paving Woodward avenue, 32 feet wide, with genuine Trinidad Pitch Lake asphalt (Specifications "B"), to the Barber Asphalt Paving Company, at \$5,794.

The following bids have been received for repaving Lafayette avenue, 15,557 square yards: German Rock Asphalt and Cement Company, with standard asphalt, \$31,000; Barber Asphalt Paving Company, with Trinidad Pitch Lake asphalt, \$35,000; Henry P. Burgard Company, with California, Bermudez or Trinidad asphalt, \$35,800.—Francis G. Ward, Commissioner of Public Works.

**New York, N. Y.**—The following bids were opened by James W. Stevenson, Commissioner of Bridges, for constructing the footwalk flooring of the Blackwell's Island bridge over the East River, between the boroughs of Manhattan and Queens: J. H. Gray Company, Broadway and Twenty-third street, \$66,000; Picklin, Baker & Co., 1 Madison avenue, \$64,600 (awarded contract); North Eastern Construction Company, 225 Fourth avenue, \$75,890; McHarg-Barton Company, 299 Broadway, \$71,640.

Due to withdrawal of contract, no bids were opened on April 23 by James W. Stevenson, Commissioner of Bridges, for completing abandoned contract for the construction of the Madison avenue temporary bridge over the Harlem River.

**Staatsburg, N. Y.**—The contracts for building a new water supply at Staatsburg have been awarded; H. I. Crandall & Sons Company of East Boston have been given the contract for the excavation work; M. J. Drummond & Co., of Lynchburg, Va., will furnish the cast iron pipe and the American Spiral Pipe Company of Chicago will supply the steel pipe. The work of excavating will amount to \$25,000. There will be about five miles of pipe. The works will be a gravity system supplied by a reservoir with a capacity of 12,000,000 gallons, which will be located about a mile east of the village.

**Syracuse, N. Y.**—The Board of Contract and Supply did not take advantage of the recent amendment to the charter relative to the term of contract for sprinkling asphalt streets with car sprinklers, but awarded a contract to the American Street Car Sprinkling Company of Worcester, Mass., for one year only. A charter amendment made at the last session of the Legislature permitted the making of contracts for car sprinkling and the collection and reduction of garbage for a longer period than one year, but owing to the fact that the new method of street sprinkling is in an experimental stage in Syracuse, it was deemed advisable to contract for a single year only this time. The award to the American company requires it to furnish four cars, trackage rights, power and labor for the sprinkling of designated asphalt streets at the rate of \$550 per month per car for the six ensuing months.

Bids were received for general repairs and improvements upon school buildings, but no awards were made. For installing a ventilating system in Seymour School, Thomas E. Gilden was the low bidder at \$4,200. There were four other proposals opened, they being as follows: Edward P. Bates, \$5,195; William P. Murphy, \$5,397; Charles E. Ames, \$5,473; Edward Joy, \$5,845.

Bids for furnishing and attaching fire escapes upon four public schools were received as follows: Jefferson School: Archbold-Brady Company, \$380; Smith & Caffrey, \$250.50; the

Schoeneck Company, \$265. Genesee School: Archbold-Brady Company, \$560; Smith & Caffrey, \$395; the Schoeneck Company, \$415. Franklin School: Archbold-Brady Company, \$560; Smith & Caffrey, \$386; the Schoeneck Company, \$400. Delaware School: Archbold-Brady Company, \$220; Smith & Caffrey, \$215; the Schoeneck Company, \$230. The total bid of Smith & Caffrey upon the four schools was \$1,246.50, they being the low bidder in each instance.

The following bids were received for installing plumbing at Genesee School: John R. Welch, \$575; Young & Power, \$660; Donovan & McCarthy, \$743; Hurst Brothers, \$746; Edward Joy, \$793; S. Group & Sons, \$794.

Bids were received for furnishing two furnaces of one type and four of another at Bellevue School. Upon the two furnaces the Syracuse Heater Company bid \$447, while Butler & Johnson bid \$226.50. For furnishing the other four furnaces the Syracuse Heater Company bid \$799.50, and Butler & Johnson bid \$453.

Only one bid was submitted for barge canal contract No. 45, which includes a large amount of work at Baldwinsville, and was nearly 10 per cent. above the estimate; a contract was let at Albany by State Superintendent of Public Works Frederick C. Stevens to Scott Brothers, of Atlanta, Ga.; their bid was \$467,513.50; the estimate was \$425,124. The contract covers the construction of a dam in the Onondaga River near Caughdenoy to replace the present one, but is to be farther upstream. Aside from this dam all of the work is in Baldwinsville, and will include the elevation of the Baldwinsville dam four feet, which will destroy some of the water powers on the Seneca River at that point. To offset this, however, the contract calls for the building of a power house that will furnish the riparian owners with a power equal to that destroyed. The construction of barge canal lock No. 24 is a part of the contract. This lock is to be 45 by 328 feet in inside measurement. Another matter covered by the contract is the building of the superstructure of a 200-foot-span bridge over the river near the Baldwinsville candle factory.

C. L. Amos has been awarded the contract by the city at \$9,126 for flushing asphalt streets for the next seven months. The contract provides for the operation of four street flushing machines recently purchased by the city for sixteen hours each day, two shifts of teams working on each flusher for eight hours each. The contractor is to pay the city \$100 rental for each of the four machines and provide his own foremen and hydrant men and other employees. The rate for each of the eight teams employed, upon which the bid was based was \$7.22 per day.

**Utica, N. Y.**—The Board of Contract and Supply has awarded the contract for constructing a 12-inch vitrified pipe sewer in Sunset avenue and Sunset place to N. Peters for \$817.50; other bids were received as follows: F. W. Seidler, \$968.25; Utica Construction Company, N. Camello, agent, \$1,026.60; McCarmack & German, \$1,110. The figures in the bids for 775 feet of 12-inch pipe ranged from 80 cents to \$1.20 per foot; those for 14 6-inch tees from 65 cents to \$1.50; for three manholes, inverted, from \$40 to \$45, and for one manhole terminal, from \$40 to \$45. The Peters bid was: For pipe, 80 cents per foot; tees, \$1.25; manholes, \$45; manhole terminal, \$45.

Bids were opened for furnishing coal for municipal buildings as follows: Fire department houses and police station, 230 tons egg coal, 175 tons stove, 75 tons nut. City Hall, 200 tons egg. General Hospital, 450 tons pea and buck coal, 40 tons stove and chestnut. Outdoor Relief Bureau, 250 tons stove and chestnut coal. Bids were received from the Utica Fuel Storage Company, Mohawk Valley Coal Company, Sang & Reusswig and W. A. Everts & Co.

The bid of the Utica Fuel Storage Company was as follows: Egg, stove and nut, May delivery, \$5.65; June delivery, \$5.70; July delivery, \$5.75; pea and buck, No. 1, May delivery, \$3.80; pea and screened buck, No. 1, May delivery, \$3.85; pea and buck, No. 1, September delivery, \$4; pea and screened buck, No. 1, September delivery, \$4.05. Coal for outdoor relief housed in quarter, half and ton lots, at \$1.75, \$3.45, and \$6.50 delivered.

The Mohawk Valley Coal Company's bid was: For General Hospital, first quality stove and chestnut, well screened, delivery before June 1, \$5.65; pea, delivery before June 1, \$4.35; first quality buckwheat, any time before April 1, 1909, unscreened, \$3.25; buckwheat, screened, \$3.35; For September and thereafter until April 1, 1909, pea coal, \$4.75. Stove and chestnut at current price at time of delivery. Outdoor Relief Bureau, first quality stove and chestnut, well screened, for city poor, one-ton lots, \$6.50; half-ton lots, \$3.45; quarter-ton lots, \$1.75. Coal to be housed as requested with no extra charge.

Sang & Reusswig's bid was: General Hospital for May delivery, No. 1 buck coal un-



screened, \$3.25; screened, \$3.35; pea, \$4.35; chestnut and stove, screened, \$5.65. General Hospital for September and thereafter: No. 1 buck coal, unscreened, \$3.25; screened, \$3.35; No. 1 pea, \$4.75; chestnut and stove at current prices prevailing at time of delivery. Outdoor Relief Bureau, No. 1 nut and stove coal in ton lots, \$6.50; half-ton lots, \$3.45; quarter-ton lots, \$1.75. Coal to be housed without extra charges for flight carrying.

W. A. Everts & Co.'s bid was: For fire houses and police station, about 230 tons egg coal, 175 tons stove coal, 75 tons nut coal, and for City Hall, 200 tons egg coal, at \$5.30 per ton.

The bids were referred to a committee consisting of Controller Reusswig, Assistant Corporation Counsel Lee and City Engineer O'Brien to report at a recess meeting.

**Statesville, N. C.**—Ordway & Co., of Winston-Salem, have been awarded the contract by the County Commissioners of Iredell County for grading and macadamizing about 2½ miles of the Taylorsville road at about \$10,000.—C. M. Miller, Salisbury, Engineer-in-Charge.

**Akron, O.**—The contract for the sewer in Edgewood avenue and Bishop street has been awarded to James McGowan at \$1,023.45. The Schiller avenue and Olive street sewer was awarded to M. H. O'Toole at \$1,640.70. The paving of North High street, from Market street north was awarded to E. McShaffrey & Son, at \$2,795.65.

**Dayton, O.**—Contracts for improving street intersections were let by the Service Board Thursday; James Archer will look after these at the southeast corner of Cincinnati and Columbia streets, which will cost \$7.20, and Frank Munger will improve the ones at the northeast and northwest corner of Coate avenue and Orchard, southwest corner Kilmer and Coate avenue, northwest and northeast corner Baker and Coate avenue, and southeast corner Hallwood and Coate avenue, at \$34.

The Board of Public Service has authorized Architect Huss, of Bomberger Park, to contract with the Dayton Asphalt Roofing and Paving Company for retaining wall; estimated cost, about \$500. Hoglen and Gebhart were awarded the contract for extension of sanitary sewer for private connection at St. Paul and Sherman avenues, at \$75.60.

**East Liverpool, O.**—Bids for the paving of Fourteenth street were opened and the contract awarded to J. M. Ryan for \$1,602.33. Other bids were: Rinehart Bros., \$1,686.44 and A. L. Weigle, \$4,847.71; the brick to be used are to be those of the Vulcan Clay Company and the McClain Brick Company, city.

**Hamilton, O.**—The following bids were received for the school building: J. F. Bender Bros. Company, \$47,637; Rosche & Bruner, \$51,282; Caldwell & Isseminger, \$52,620; Martin Bros., \$51,060; Symmes & Benzing, \$56,556.50; Sparks & Martin, \$61,752.50; William F. Stillwell, \$57,000; E. G. Nave Bros., \$61,656.34; E. G. Nave Bros. (partial bids complete), \$31,000; J. L. Simmons, \$56,560. The lowest bid for steam heating, \$5,086, was from John Arph; for plumbing, \$3,253, from L. G. Betscher; for wiring, \$681.75, from Hamilton Electric Company.—John A. Keller, Clerk, Board of Education.

**Lancaster, O.**—The Board of Public Service has awarded the contract for constructing the Maple street storm water sewer in Sewer District No. 3, to E. H. Ames, of Columbus, at \$36,718.

**Point Pleasant, O.**—The Mount Vernon Bridge Company was awarded the contract by the Kanawha and Michigan Railway Company for the construction of four spans of the company's bridge across the Ohio River here at about \$200,000.—T. R. Scanlan, Inspector B. & B., Lancaster.

**Sandusky, O.**—The following bids were received on May 1 by the Board of Public Service for furnishing and installing two 6,000-gallon centrifugal pumps, with direct-connected reciprocating or turbine-condensing engines, to be operated with 80 pounds steam pressure, with a total pumping head of 25 feet, providing for about 9 and 16 feet discharge, including foundation, suction and discharge pipes and valves connected therewith, automatic oiling devices and necessary gauges; also a duplex air compressor, steam driven, duplex steam cylinders, duplex compound air cylinders, with fly-wheel connections, to be constructed to deliver 1,000 cubic feet free air at 5-pound pressure, with steam boiler pressure at 80 pounds to operate with about 150 r. p. m.: Pumps—Dayton Hydraulic Machinery Company, \$4,300; R. D. Wood & Co., 400 Chestnut street, Philadelphia, Pa., \$4,895; D'Olier Engineering Company, 121 South Eleventh street, Philadelphia, \$5,000; Platt Iron Works Company, 100 Broadway, New York, \$5,410; H. R. Worthington, \$5,500; Allis-Chalmers Company, Milwaukee, Wis., \$6,200; Dravo, Doyle & Co., Arcade Building, Philadelphia, \$6,750. Compressor—Burry Compressor Company, \$1,868; Laidlaw-Dunn-Gordon Company, 115 Broadway, New York,

\$1,735; Ingersoll-Rand Company, 11 Broadway, New York, \$2,050; American Air Compressor Works, \$1,793; Blaisdell Machinery Company, Bradford, Pa., \$2,400; Hall Steam Pump Company, \$1,900.—Clifford M. King, City Engineer.

**Warren, O.**—Bids were received by the Board of Public Service for the construction of the West Market street sewer and laterals as follows: W. T. Smith, Warren, 2,250 feet of 15-inch pipe, 81 cents per foot; 5,210 feet 12-inch pipe, 57 cents; 15x6-inch Ys, 95 cents; manholes, \$25.10; lamp holes, \$2.97; 1,000 feet of rock excavation, 1 cent; George Dennis, Warren (awarded contract), 15-inch pipe, 64 cents; 12-inch, 48 cents; connections, 80 and 50 cents; manholes, \$25; lampholes, \$2; excavation, 1 cent. Ferry & Co., New Castle, Pa., 15-inch pipe, 94 cents; 12-inch, 66 cents; connections, 70 and 45 cents; manholes, \$33; lamp holes, \$5; excavation, 10 cents. Garland Bros., Youngstown, O., 15-inch pipe, 85 cents; 12-inch, 63 cents; connections, 80 and 64 cents; manholes, \$29.70; lamp holes, \$2.75; excavation, nothing. Lucius Bros., Pittsburg, Pa., 15-inch pipe, 80 cents; 12-inch, 60 cents; connections, \$1.05 and 77 cents; manholes, \$28; lamp holes, \$2.50; excavation per cubic yard, \$1.10. F. C. Armstrong, Warren, 15-inch pipe, 75 cents; 12-inch, 53 cents; connections, \$1 and 75 cents; manholes, \$26; lamp holes, \$2.50; excavation, 1 cent. Wiles & Davidson, Akron, Ohio, 15-inch pipe, 93 cents; 12-inch, 64 cents; connections, 85 and 65 cents; manholes, \$32; lamp holes, \$2; excavation, 30 cents. Victor Ohlson, Youngstown, Ohio, 15-inch pipe, 79 cents; 12-inch, 62 cents; connections, 70 and 55 cents; manholes, \$32.50; lamp holes, \$2.50; excavation, 10 cents; contract has been let to George Dennes.

**Zanesville, O.**—J. E. Brown has been awarded the contract for constructing the sewer in Tarlier alley by the Board of Public Service, at 90 cents a foot.

**Oklahoma City, Okla.**—George H. Keefer, Mount Carmel, Pa., was awarded the contract by the Water Committee for the construction of a clear well and sedimentation basin at the water works plant at \$11,205 and \$10,695, respectively.

**Estacada, Ore.**—The County Court has awarded to Olds & Reed the contract for the construction of the bridge across the Clackamas River here at \$5,800.

**Donora, Pa.**—Bids were opened for the construction of retaining walls, stone steps and coping; the joint bid of Isaac Kane and J. D. Leasure was the low, and the contract was awarded; their price for the rubble work, the largest item, was \$6 per cubic yard.

**Erie, Pa.**—Mayer Bros. were awarded the contract for resurfacing French street, from Second to Eleventh street, at the following prices: Asphalt top, \$1.84 per square yard; concrete base, \$6.75 per square yard; new concrete curbing, 65 cents per foot; resetting old curbing, 20 cents per foot; resetting old stone, 75 cents; manholes, \$65 each; catch basins, \$45 each.

**Harrisburg, Pa.**—The Water Commissioners opened bids for the annual supplies of the Water Department and as the result of close competition the city will save much money during the present fiscal year; the bids were not based on specific quantities, the department ordering supplies as needed. J. Drummond & Company, New York City, were the successful bidders out of four for cast-iron water pipes. The price bid was \$10 less per ton than the price paid last year. The other successful bidders were: Pennsylvania Salt Manufacturing Company, Philadelphia, for filter alum; Rensselaer Manufacturing Company, Troy, N. Y., for valves; Eddy Water Company, Waterford, N. Y., for fire hydrants; H. Mueller Manufacturing Company, Decatur, Ill., for corporation cocks, and E. N. Cooper & Company, Harrisburg, for castings.

**Lancaster, Pa.**—The Water Committee of Councils has awarded the contract for the coming year's supplies to the following firms: Valves, Rensselaer Manufacturing Company, Troy, N. Y.; fire hydrants, Rensselaer Manufacturing Company; hauling pipe, John H. Myers; special castings, Steinman Hardware Company; digging trenches, Herman Schweers; lead, Central Machine Works; ferrules, Henry Mueller Manufacturing Company, New York; pipe, United States Cast Iron Pipe and Foundry Company, Philadelphia. The Pittsburg Meter Company was awarded the contract for meters, except fifty, which will be bought from the Thomson Meter Company of Brooklyn, N. Y.

**Lebanon, Pa.**—The Highway Committee of Councils opened bids and made recommendations for supply contracts for 1908 as follows: Lumber: Miller Bros., sole bidders; recommended; white pine boards, \$40 per m; planks, \$40 per m; scantling, \$35 per m; white oak plank, \$32 per m; hemlock board, \$27 per m; planks, \$25 per m; scantling, \$25 per m. Metal Culverts: Union Boiler and Manufacturing Company, sole bidders; rec-

ommended; bottoms, \$1 square foot; culverts, tops, 7-inch rise, 24-inch spread, 13½ radius, \$1.05 square foot; 8x24x13, \$1.10; 9x24x12½, \$1.15; 10x24x12 3-16, \$1.20; 8x28x16½, \$1.25; 10x28x14 13-16, \$1.30. Stone curbs: W. S. Bock, 3 inches thick, 16 inches deep, 34 cents linear foot; 4x20, 46 cents; 5x24, 57 cents; 6x28, 80 cents. Hartlieb Bros., 3x16, 32 cents; 4x20, 44 cents; 5x24, 54 cents; 6x28, 67 cents. Contract recommended to be awarded to Hartlieb Bros. Crushed stone: E. H. Brensinger, 73 cents.

**New Castle, Pa.**—Councils received bids for constructing several sewers and grading of new streets, and the Engineer's estimates were cut in every instance, in one instance there being a bid made for work one-third less than the estimated cost of the work by the Engineer. For constructing Winter avenue sanitary sewer, from Highland avenue to Delaware avenue, the Engineer's estimate was \$1,851.56; Rhodes & Myers secured the contract with a bid of \$1,540.40. Haus avenue sanitary sewer, estimate, \$493.58; the New Castle Contracting Company got the work for \$296.80; grading John street, between Butler avenue and Pearl street, estimate, \$589.50; the New Castle Contracting Company bid \$397.70 and got the contract. Haus avenue grading, between Croton and Woodlawn avenues, estimate, \$185; Charles Staff & Co. bid \$118.40 and got the work. Grading of Madison avenue, between Fourth and Fifth streets, estimate, \$165; Charles Staff bid \$99, cutting Rhodes & Myers out of the job by \$1.50.

**Pittsburg, Pa.**—H. C. Van Ormer & Sons of 6101 Penn avenue, have been awarded contract for a new patrol station at Hazelwood avenue and Lytle street, at \$35,000.

**Philadelphia, Pa.**—Bridge contracts, for which bids were received April 22, were awarded to the following contractors: Thomas F. Reilly, 918 Harrison Building, Philadelphia, 60-foot reinforced concrete arch, 100 feet wide, at Hunting Park avenue, \$37,535, as per following items: Concrete in foundation, per cubic yard, \$6.75; concrete above neat line, \$9; steel work, per pound, 4 cents; grading, per cubic yard, 80 cents; granolithic sidewalk, per square yard, \$1.80; granolithic curb, per linear foot, \$1.10; Sedgwick street double track railroad bridge, \$26,561, as per the following items: Concrete in foundation, per cubic yard, \$7; concrete above neat line, \$9; steel work, per pound, 4 cents; grading, per cubic yard, 90 cents; granolithic sidewalk, per square yard, \$1.80; granolithic curb, per linear foot, \$1.10.

McGraw & Gray, Pennsylvania Building, Philadelphia: Rockland street, 60-foot reinforced arch, 60 feet wide, \$23,400, as per following items: Concrete in foundation, \$6; concrete above neat line, \$6.50; steel work, per pound, 4 cents; grading, per cubic foot, 25 cents; granolithic sidewalk, per square yard, \$1.70; granolithic curb, per linear foot, \$1.50.

Filbert Paving and Construction Company, 904 Pennsylvania Building, Twenty-ninth street, steel girders, concrete floor, \$32,159, as per following items: Concrete in foundation, \$7.50; concrete above neat line, \$9; steel work, per pound, 10 cents; granolithic sidewalk, \$1.80; granolithic curb, \$1.10.—Henry H. Quimby, Engineer of Bridges, Bureau of Surveys.

**South Williamsport, Pa.**—The members of Citizens' Fire Company, No. 2, has taken final steps to getting work started on their proposed new station by letting a contract for the erection of the new building to Bennett & Woodnut, at \$8,278; the plans call for a two-story brick, with brown stone front trimmings.

**Woonsocket, R. I.**—The following bids were received for constructing 2,700 feet of sewer 9 feet deep; the prices are per linear foot, including manholes, the city furnishing the pipe: Cinedella & Co., \$1.55; Cumberland Construction Company, \$1.24; Globe Coal Company, \$1.35; C. F. Parker, \$1.34; C. Crankshaw, \$1.50; O'Shea & Bailey, \$1.38½, and Ryan-Numack Co., the lowest bidder, \$1.20, who also bid \$5 per cubic yard for the rock excavation and \$35 per M for sheathing left in place.—Frank M. Mills, City Engineer.

**Cleburne, Tex.**—Klein Brothers, of Dallas, Tex., have been awarded the contract by the city for the construction of approximately two miles of cement sidewalks and park curbing on Anglin street.

**Salt Lake City, Utah.**—The Board of Public Works opened bids for improvements, the aggregate cost of which will be \$283,592.99, and, as usual, P. J. Moran captured all the paving work, although he had competition for the first time in months in the Barber Asphalt Company. James Kennedy and Davis & Heuser were low bidders on the sewer work. S. Birch carried off the only sidewalk extension. The city's portion of all the work bid on will be only \$14,000, for as in the paving the city's portion is practically eliminated, except for grading, because the intersections have already been completed. In

the sewer work the city pays nothing, and on the sidewalk job it pays only for the intersections and half the grading. The bids in detail were as follows, the Engineer not having completed the estimate of the total cost on the paving or grading:

Paving extension No. 38, Fifth East street, between South Temple and Third South streets—Barber Asphalt Company, \$3.40 a square yard for laying asphalt along abutters' portion and 41 cents per cubic yard for grading; for the city's portion, \$3.77 a square yard for laying asphalt and 72 cents a yard for grading. P. J. Moran—For laying asphalt along abutters' portion, \$3.25 a square yard and 39 cents a cubic yard for grading; for the city's portion, \$3.70 a square yard for asphalt and 74 cents a yard for grading.

Paving extension No. 39, Fifth South, between Main and Second East streets: Barber Asphalt Company—For abutters' portion, \$3.47 a square yard for laying asphalt and 45 cents a cubic yard for grading; for city's portion, \$4.61 a square yard for asphalt and 35 cents a yard for grading. P. J. Moran—For abutters' portion, \$3.32 a square yard for asphalt and 43 cents for grading; for city's portion, \$4.53 a square yard for asphalt and 37 cents for grading.

Paving extension No. 41, F street, between South Temple and First avenue: Barber Asphalt Company—For abutters' portion, \$2.90 a square yard for laying asphalt and 40 cents a cubic yard for grading; for city's portion, \$4.54 a square yard for asphalt and 57 cents for grading. P. J. Moran—For abutters' portion, \$2.67 a square yard for asphalt and 48 cents a cubic yard for grading; City's portion, \$4.38 a square yard for asphalt and 52 cents for grading. Entire estimated cost of paving, \$75,000.

For grading Third South street, between Eleventh and Twelfth East streets: P. J. Moran—Grading at 54 cents a cubic yard; approximate cost \$14,000; no other.

Sidewalk extension No. 121, Eighth South street, from Eighth to Ninth West streets, Titusville avenue from Ninth South to Jordan river, Indiana avenue from the river to Cheyenne street; cost by terms of lowest bid, \$4,240; J. D. Hanley—For laying cement walk, 15 cents a square foot and 12 cents a foot for grading. Frank Doran—For laying cement walk, 16 cents a square foot for laying walk and 12½ cents for grading. S. Birch—For laying walk, 15.9 cents a square foot and for grading 8.1 cents a foot. Zerbe & Walker—For laying walk, 18½ cents a foot and for grading 9½ cents a foot. Contract awarded to Birch.

Sewer extension No. 185, Main street to the gravity sewer and Fifth to Ninth South streets; price of lowest bidder \$72,968.54; Strange & McGuire, \$2.05 a foot; Davis & Heuser, \$1.82 a foot; J. D. Hanley, \$1.54 a foot; James Kennedy, \$1.33 a foot; contract awarded to Kennedy.

Sewer extension No. 186, Third avenue to Sixth avenue and A street to the reservation; price of lowest bidder, \$117,384.40; J. D. Hanley, \$1.76 a foot; Davis & Heuser, \$1.65 a foot; James Kennedy, \$1.72 a foot; lowest bidder, Davis & Heuser.

Lynchburg, Va.—The contract for constructing a macadam road from Lynchburg to Boonsboro, about 4½ miles, has been awarded by Bedford and Campbell Counties to Lane Brothers, of Lynchburg, at about \$3,000 per mile; the macadam is to be six inches after rolling and 12 feet wide.—B. W. Hubbard, Supervisor, Bedford County, Forest Depot.

Bellingham, Wash.—Peterson & Webel have been awarded the contract for the improvement of Harris avenue, from Ninth to Fourteenth avenues, by grading and planing, at \$6,083; other bidders were: Campbell & Walker, \$6,990; H. Pearson, \$6,791; J. L. Likins, \$6,856; Riddle & Kavanaugh, \$6,318; J. M. Ager, \$7,015; Swan Hawkins, \$6,675; J. Lich, \$7,304.

Chehalis, Wash.—The contract for paving a portion of the business district of the city with vitrified brick, about 10,000 square yards, was awarded to B. S. Davis, of Tacoma, at \$49,281.

Odessa, Wash.—A contract was awarded to Hughes & Co., Spokane, Wash., for furnishing pipe, as follows: 8,350 feet 4-inch pipe, 48 cents per foot; 5,900 feet 6-inch pipe, 77½ cents per foot; 2,950 feet 8-inch pipe, \$1.13½ per foot; fire hydrants, 4-inch connection, 2½-inch nozzle, \$34.

Parkersburg, W. Va.—The following bids were received by Board of Affairs for curbing and paving (a) Dudley and (b) Murdock avenues: S. H. DeGroodt, Youngstown, O., (a) \$10,721, (b) \$5,486; C. Skidmore, Parkersburg, (a) \$10,226 (awarded contract), (b) \$5,794; Hugo Heydenreich, Parkersburg, (a) \$9,108, without curb, (b) \$4,965, without curb (awarded contract); C. T. Cisler, Marietta, O., (b) \$5,868.

The following bids were received for the construction of a 15-inch sanitary sewer: Central Construction Company, Parkersburg,

\$7,159 (awarded contract); J. W. Curry, Parkersburg, \$7,462; B. F. Stewart, Jr., Parkersburg, \$7,926; S. H. DeGroodt, Youngstown, O., \$7,579.—John V. Dunbar, City Engineer.

Shawano, Wis.—All bids for paving Main street with tar, macadam, concrete curb and gutter combined have been rejected by the city.

Goderich, Ont., Can.—The following bids were received, April 29, for pipe and valves: John T. Founier, Montreal, \$1,577.08; D. R. Wood, Philadelphia, Pa., \$1,846.98; Doty Engineering Company, Goderich, Ont., \$1,513.83. The items of the low bidder were: 16 tons 18-inch pipe at \$43; 4½ tons 18-inch specials, \$85; 4 valves, bolts and gaskets, \$465.65. For building the sedimentation basin, 100x50x10 feet, Peter Nicholson, Monkston, Ont., bid \$8,648.—J. Grant MacGregor, C.E., Chief Engineer.

## PATENT CLAIMS

885,108. Centrifugal Pump. Simeon V. Trent. Salt Lake City, Utah. Serial No. 353,379.

A centrifugal pump comprising a rotary impeller having a central suction recess and discharge passages leading therefrom to its periphery, a volute, and a casing inclosing the impeller and provided with an annular discharge throat extending from the outer ends of the discharge passages of the impeller to the interior of the volute, said throat being of a width at its inner end equal to that of the outer ends of the discharge passages and thence contracting toward its outer end so as to be less in width than the outer ends of the said passages.

885,306. Ditching Apparatus. Mathias Westenhaver and Marshall Westenhaver, Sterling, Kan. Serial No. 389,266.

A ditching apparatus comprising a drum platform, a motor and drum thereon, means for anchoring the platform, means for connecting the motor to the drum, a primary ditching device, a cable adapted to be wound on the drum, means connecting said cable to the primary ditching device, means carried by the primary ditching device for cutting a shallow ditch and depositing the earth at one side of said ditch, a ditch finishing device adapted to be moved longitudinally in the ditch cut by the first device and carrying means to deepen the ditch and to compact the sides thereof, means carried by said finishing device to discharge the earth at one side of the ditch, means for attaching the cable to the ditch finishing device, and means carried by the primary ditching device to support the cable when the ditch finishing device is in operation.

885,397. Water-purifying Apparatus. Oman L. Stump, John Reidenbaugh and Edwin D. Packard, Marion, Ohio, assignors to the Marion Incline Filter and Heater Company, Marion, Ohio, a corporation of Ohio. Serial No. 322,911.

In a water-purifying apparatus, the combination, with a purifier proper, of chemical appliances located therein and consisting of a tank or receptacle for containing a reagent, water supply means discharging into said tank or receptacle and discharge means therefrom to introduce the solution produced by the water acting on the reagent into the water to be purified.

885,906. Electric Arc Lamp. Heinrich Beck, Frankford-on-the-Main, Germany, assignor to Beck Flaming Lamp Company, Canton, N. Y., a Corporation of New York. Serial No. 343,739.

In an electric arc lamp, an electrode, a frame having an aperture through which the electrode passes, said aperture of greater diameter than the electrode so as to permit lateral movement of the latter, and means for sealing the aperture, comprising a plurality of superimposed plates supported by the frame and apertured for the passage of the electrode through them, one of said plates partially sealing the aperture in the frame and another partially sealing the aperture in the plate below it, each of said plates being free to slide by the lateral movement of the electrode.

885,922. Telephone System for Fire-Hose. Harry Groschwitz, Philadelphia, Pa. Serial No. 248,973. Renewed March 24, 1908. Serial No. 422,964.

The combination of two lengths of hose adapted to be coupled, a two-part coupling comprising annual members having annular integral internally projecting flanges against the rear interior faces of which the ends of the hose lengths abut, said flanges having longitudinal apertures extending through the same adapted to register when the members are coupled, insulating blocks in said apertures, contacts in said blocks normally projecting slightly beyond the faces of the blocks, wires wholly embedded in the walls of the hose lengths and extending through the apertures in the flanges of the coupling members and terminating in contact with said contacts, and an annular insulating gas-

ket adapted to be compressed in grooves in the inner edges of the flanges and prevent access of water or other material to the contacts.

885,984. Gasolene Road-Roller. Norman De Wind and Frank R. Jones, Harvey, Ill., assignors to Austin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Serial No. 364,305.

In a power-propelled road-roller, the combination with a frame, a steering wheel in the forward end thereof, and an axle and pair of traction wheels mounted thereon supporting the rear end, of a gas engine and engine-shaft mounted on said frame, a gear on said axle, two trains of power-transmitting gears between said engine-shaft and axle gear, one transmitting a forward and the other a backward travel to said roller, and a travel-reversing double-clutch serving to simultaneously render either train of gears operative and the other idle, substantially as described.

886,067. Road Drag. Frank E. Ott, Indianapolis, Ind. Serial No. 408,793.

A road drag including a frame comprising a plurality of frame beams, two of the beams being spaced nearly together and central between two other of the beams; a plurality of blades each adjustably connected with the frame beams, a lever pivoted between the two central beams, a connecting rod pivoted to the lever, and means connected to the rod and the blades for adjusting the blades.

886,068. Apparatus for the Chemical Treatment of Water. Alexander Potter, New York, N. Y. Serial No. 352,280.

In an apparatus for the chemical treatment of liquids, the combination of a plurality of basins, means for supplying a chemical to a portion of the basins, means for withdrawing the surplus from these basins and delivering it to the remaining basins, and a trough receiving the discharge from all of the basins.

## INCORPORATIONS

Algonquin Light and Power Co., Oklahoma City, Okla.; capital, \$100,000. Incorporators: Thomas F. Spillman, R. S. Gales and others.

F. A. Burdett & Co., New York, N. Y., consulting engineers; capital, \$100,000. Incorporators: Samuel B. Howard, Millbrook, N. Y.; Arthur W. Britton, East Orange; J. Disbrow Baker, 37 Wall street, New York.

Darley Engineering Co., New York, N. Y.; capital, \$100,000. Incorporators: Harland B. Tibbets, 114 West Seventy-ninth street; James G. Gregg, 141 Broadway, both of New York; John T. McGovern, 1279 New York avenue, Brooklyn.

Germantown Improvement Association, Carlyle, Ill.; to operate heat, light and power plants; capital, \$10,000. Incorporators: Henry Schurman, B. J. Schlarmann, A. B. Michels.

Hudson & Passaic Canal Co., Passaic, N. J., to operate canals; capital, \$90,000. Incorporators: John J. Read, Plainfield; Arthur V. Conover, Mt. Holly; John J. O'Leary, Charles H. Bickell, Gilbert D. Bogart, Bird W. Spencer, Passaic; Charles A. Reid, Trenton; George E. P. Howard, South Orange; Robert A. Montgomery, Lambertville.

Kinser Crushed Stone Co., Fort Edward, N. Y.; to quarry stone, coal, timber and building material; capital, \$15,000. Incorporators: Thomas W. Kinser, Terre Haute, Ind.; Harry L. Kinser, Indianapolis, Ind.; William J. Kinser, Chicago; Wilson J. Cleaver, Fort Edward, N. Y.

Portland Electric Light & Power Co., No. 805 Ashland Block, Chicago, Ill.; to operate heat, light and power plants; capital, \$15,000. Incorporators: Fred Trost, John R. Roney, John P. O'Shaughnessey.

Rockford Engineering & Construction Co., Rockford, Ill.; engineering and general contracting; capital, \$15,000. Incorporators: Charles C. Stowell, J. H. Sablin, W. C. Stevens.

Scoria Paving Co., Rochester, N. Y.; general contracting; capital, \$10,000. Incorporators: John K. Lathrop, Minnewaska, N. Y.; K. A. Fox, 551 Third avenue, New York; M. J. Duffy, Jersey City.

Sturgis Construction Co., Boston, Mass., contractors; capital, \$50,000. President, John Carbone, Boston; treasurer, Giuseppe Bevilacqua, Boston; clerk, Daniel E. Eile, Melrose.

Washington Contracting Co., Camden, N. J.; contracting and construction; capital, \$100,000. Incorporators: F. R. Hansell, William F. Eldell, John A. MacPeak, as above.

West Seneca Construction Company, West Seneca, N. Y.; general contractors, construct roads, etc.; capital, \$10,000. Incorporators: Michael Joyce, James McAndrews, West Seneca, N. Y.; George Johannes, Buffalo.

Winchester Electric Co., Winchester, Ill.; to operate a heat, light and power plant; capital, \$10,000. Incorporators: William Milhouse, C. H. Condit, Sol Hainsfurther.



## TRADE NOTES

**Cast-Iron Pipe.**—Chicago: Low prices on contracts seem to indicate that reduction in price of pig iron is being discounted. Quotations: 4-inch, \$27; 6 to 12-inch, \$26; 16-inch and up, \$25. San Francisco: Good inquiries are reported. Large amounts of pipe will be needed for the auxiliary salt water fire protection system and it seems likely that the Lake Eleanor supply scheme for San Francisco will go through, requiring large amounts of pipe. Quotations: 6 to 12-inch, \$38; 4-inch, \$39. Birmingham: Tonnage in sight for Cuba, Mexico, South American points and Porto Rico. The contract for 5,200 tons for St. Louis went to the United States Cast Iron Pipe and Foundry Co. at a price which is not given out, but is supposed to be very low. Quotations: 4 to 6-inch, \$23; 8 to 12-inch, \$22; over 12-inch, average, \$21.

**Lead.**—Demand is good and prices have been advanced to 4.20c in New York and 4.10c in St. Louis. The European market is declining as the American advances.

**New Address.**—The Fort Wayne Electric Works, Fort Wayne, Ind., announce that their New York City offices, formerly located at 40 New street, have been moved to the Cortlandt Building of the Hudson Terminal. The new offices are located on the fifteenth floor.

**New Address.**—The Crocker-Wheeler Company, formerly of 39 and 41 Cortlandt street, New York City, announces that on April 24 they will move their offices to 32 Cortlandt street, in the Cortlandt Building of the Hudson Terminal. The new location will be especially convenient to customers who may wish to visit the works and main office at Ampere, N. J.

**Fire Hose.**—The Eureka Fire Hose Company, New York, N. Y., publishes a poster giving the following instructions regarding the care of fire hose:

Do not allow hose to remain in wagons or on reels, if wet or muddy; remove all mud by washing or brushing, and expose hose to air, in towers or on racks, preferably at full length, to dry.

Our hose is antiseptically treated and will not mildew or rot if given ordinary Fire Department care, but continued dampness is injurious to cotton fabrics. Mud often contains metallic or other substances that are chemically injurious to hose, if permitted to remain on it.

Do not permit hose to remain on apparatus for any great length of time when not used. It should be removed, hung up in towers or on racks and replaced with a fresh supply. Avoid short bends in hose that is stored away. When necessary to store hose in folds, the folds should be changed occasionally, to overcome permanent set of hose.

When new hose is received do not allow it to remain packed in cases until it may be required, but remove from cases and loosen coils.

Unless hose is likely to encounter a freezing temperature, it is not necessary to perfectly drain the water out, as the rubber lining is not injured by dampness within, but, on the contrary is benefited by remaining in a moist condition, and all rubber lined hose should have water passed through it at frequent intervals, to moisten the rubber.

Hose when frozen is liable to crack if bent while in that condition. Extreme cold causes a deterioration of rubber, but not sufficient to prevent storage of hose in cold hose houses, if thoroughly drained and dried.

Avoid exposure of hose to very hot dry air. It should not be stored where exposed to the sun's rays. When hose must be kept in hot and dry places, it is best to pass water through it monthly.

When fire hose is being used see that section nearest engine or hydrant is not being shafted at point of contact with the ground, by vibration.

Acids and other chemicals, oils, iron-rust, etc., fumes arising from some processes, are injurious to hose, and contact with them is to be avoided.

When discharging or recharging chemical engines or extinguishers, see that solutions used do not come in contact with hose.

**Conduits.**—The Long Acre Light & Power Co., of New York City, has made

application to the Public Service Commission to be allowed to issue \$60,000,000 worth of bonds. There was a hearing before Commissioner Maltby, and the Anti-Monopoly Light & Power Co. opposed the Long Acre company on the ground that the franchise was invalid and that the Anti-Monopoly company holds more than one-half interest in the Long Acre company. The purpose of bonding the company so heavily is to go into the conduit business on a large scale.

**General Electric Report.**—A heavy falling off in net earnings and surplus for the fiscal year ended January 31 was shown in the sixteenth annual report of the company. Net earnings, including income from securities sold, royalties, dividends of subsidiary concerns, interest on bonds held in its treasury, readjustment in stocks and bonds account and sundry profits, amounted to only \$6,583,653, compared with \$8,427,842 for the previous year. Dividend disbursements involved \$5,183,614, compared with \$4,344,342, and the 1907 surplus reached only \$1,403,039 compared with \$3,083,501. The total surplus, however, amounted to \$16,513,836 compared with \$15,110,796. C. A. Coffin, President of the company, reported that all the company's materials, notably copper, which were raw, manufactured or in process of manufacture on hand on January 31, had been inventoried at the lower prices to which they had dropped. The book value of such inventories, he added, had been reduced thereby by about \$2,000,000.

**Water Company Report.**—At the annual report of the stockholders of the Monongahela Water Company in Pittsburgh, the report of the secretary showed that the past had not been a prosperous year, although more water was sold than in the previous year. Expenses incident to the appraisal preparatory to the acquisition of the property by the city and expenses for repairs were the cause of the poor year's business. Both the city and the company have appealed from the decision of the appraisers, placing the value at \$1,975,000. The following officers were elected for the ensuing year: President, Mark W. Watson; Managers, B. F. Jones, Jr., Joseph G. Walter, John Moorhead, Jr., A. W. Mellon, James W. Scully, J. D. Lyon, R. H. Boggs and George E. Painter. Mr. Boggs was elected to succeed Albert Ernwein, deceased, and Mr. Painter takes the place of J. R. McGinley, retired.

**Motor Fire Apparatus.**—The Webb Motor Fire Apparatus Company, of Vincennes, Ind., has been incorporated to manufacture motor fire apparatus. The company is capitalized at \$100,000 and proposes to manufacture and deal in fire engines, chemical apparatus, hose wagons and carts and hook and ladder trucks which are operated by steam, electricity and gasoline. According to the articles of incorporation the company will also develop all inventions which may be thought beneficial to its business. It also is authorized to buy real estate and build factories for the manufacture of the horseless fire equipment. The directors are Charles Bierhaus, Edward Watson, Eugene Hack, Anton Simon, Albert C. Webb, J. Napier Dyer and John B. Bayard.

**Steam Engines.**—A. S. Ide and Sons, Springfield, Ill., manufacturers of the "Ideal" engines, issue a list in galley proof form of the purchasers of their engines, giving the destination and size. The list is many feet long. Among the buyers are many owners of power plants and not a few municipal departments engaged in lighting enterprises.

## PERSONALS

BOYLE, W. B., Mayor of Sumter, S. C., has been reelected, also Aldermen Hugh C. Haynsworth, Henry D. Barnett, R. F. Haynsworth, R. L. Wright and P. P. Finn, while former Alderman Walter G. Stubbs again becomes a member of the City Council, and the new members are Willie Bultman and J. R. Ligon.

BUDD, JOHN W., has been appointed City Engineer of Des Moines, Ia., to succeed George Dobson.

CAZANAS, B. C., St. Louis, Mo., has been elected Chairman of the newly-appointed Public Baths Commission; Mrs. George A. Williams, Secretary, and Sam Diamond, Treasurer, the other members of the Board being Mrs. Isidore Newman, Miss Sophie B. Wright, Mrs. A. J. Stallings, James Goode, W. C. Murphy and John T. Pender.

CHURCH, D. W., Assistant Engineer in charge of the Designing Department of the City Engineer's office in Chicago, Ill., has been appointed Principal Assistant Engineer of the office.

CORCORAN, CORNELIUS, J., President of the Common Council of Milwaukee, Wis., has been reelected and advocates the purchase of Jones Island by the city for a system of docks.

DAVIS, J. P., has been elected Mayor of Mena, Ark., at the first election as a city of the first class.

DULEY, JEFFERSON M., a Constable of Tacoma, Wash., has been appointed Chief of Police by Mayor Linck to succeed Thos. Malony who has filled the office for four years and has named as his Captains A. S. Read and J. W. Needham to succeed C. E. King and William Olsen.

EDMUNDS, R. L., Commissioner of Public Works of Sumter, S. C., was reelected without opposition.

ELLIOTT, DR. CHARLES, Chief Engineer of the Fire Department of Greenville, O., for ten years, has resigned, and will take up the practice of his profession as a physician at Arcanum; Ora McClellan, Assistant Chief, has been promoted to Chief.

FRARY, DR. T. C., Hoquiam, Wash., has been elected Mayor of the city over F. D. Arnold.

JOHNSTON, HARRY L., Altoona, Pa., was elected President of the Board of Health of the city on its reorganization when Dr. C. F. Robison, the appointee of Mayor Hoyer, was sworn into office, S. B. Trees was elected Secretary at a salary of \$600; Thomas G. Herbert was reelected Health Officer, at a salary of \$960; Peter Harlow and Henry Beckman, Assistant Health Officers at \$780 each; Dr. E. C. Fetter, Physician to the Board, at \$100; and John Gorey, reelected as Superintendent of the city dumping ground at \$1.60 per day.

JOYCE, MAURICE, Mayor of East St. Louis, Ill., in 1879, the first under the charter, died recently at his home there, aged 76 years.

KIMMEY, WILLIAM A., of Wilmington, Del., has been elected City Engineer of New Castle, Del.

KINSEY, L. B., formerly City Engineer of Urbana, Ill., has been appointed City Engineer of Muskogee, Okla.

KIRKPATRICK, W. G., City Engineer of Jackson, Miss., has resigned and has been succeeded by Hamilton Johnson.

LAYMAN, E. F., having retired as Sewerage Engineer of Cincinnati, O., now has an office in the Blymyer Building, Cincinnati, for general practice as Civil Engineer, special attention being paid to sewerage, water supply, municipal improvements, examinations, estimates and reports; he has been retained by the city of Norwood, as expert, in a number of suits filed against the city for damages alleged to be caused by the pollution of Duck Creek.

LEHMAN, GEO. H., has been elected secretary of the Special Committee of the Pittsburg Chamber of Commerce, which was appointed to study the flood problem and recommended a plan for protecting the city; Mr. Lehman is the engineer member of the committee.

MCCALL, JAMES ST. CLAIR, Mayor of York, Pa., on retiring from office was presented with a framed photograph of the police force of the city, in the presence of the entire membership of the department, by Chief Jacob Hose, who pointed out the improvements made in this branch of municipal service during the past two administrations, and extolled the worth of Mayor McCall.

MCCURDY, GEORGE, President of the Common Council of Philadelphia, Pa., was unanimously reelected, and James M. Hazlett, President of the Select Council, received a like honor.

MCFADDEN, CHARLES O., Mayor of Long Branch, N. J., has named Harry Fleet and Andrew E. Nelson as members of the Board of Health for a term of four years, to succeed Louis Rothenberg and B. Drummond Woolley, terms expired.

MCINTOSH, H. M., City Engineer of Burlington, Vt., has been reelected by the new City Council, also the following other officers: City Clerk, M. C. Grandy; City Treasurer and Custodian of the United States Deposit Money, L. C. Grant; City Attorney, J. H. Macomber; Sealer of Weights and Measures, W. E. Laprese; Water Commissioner, three years, J. W. Votey; Fire Commissioner, three years, M. L. Sanborn; Street Commissioner, three years, J. B. Henderson; Electric Light Commissioner, three years, J. J. Childs; Fire Warden, one year, Carl D. Stockwell. Also: C. L. Soule was elected to succeed C. S. Isham, resigned, as Park Commissioner, and W. J. Van Patten was also elected Park Commissioner to succeed himself; A. B. Buell was elected Fire Commissioner to succeed A. S. Drew, resigned.

McKNIGHT, JOHN T., City Engineer of Rockville, Conn., has been re-elected.

MARKBREIT, LEOPOLD, Mayor of Cincinnati, O., received a delegation of school children recently and addressed them in German, Italian and English, telling them of the management of their city.

PILLSBURY, F. W., Mayor of Sioux Falls, S. D., was defeated for reelection by W. T. Doolittle, a veteran railroad engineer, when the Anti-saloon party was defeated.

POYNS, JESSE C., Chief of the Fire Department of Tacoma, Wash., 1898 to 1904, has been appointed by Mayor Linck to succeed George McAlevy, who is critically ill as a result of inhaling nitric acid fumes, when Lieut. John J. Covert was killed and a number of other men were made critically ill; Chief Poyns also succeeded Chief McAlevy, when he was first appointed as head of the Department.

RUSH, WALTER L., Mayor of Bessemer, Ala., has been reelected, as have also City Clerk and Treasurer E. B. Stubbs, while other officers have been chosen, as follows: Chief of Police, T. B. Wallace; Street Superintendent, D. M. Ratliff; President of the Council, I. A. Lewis; Sanitary Inspector, Ben F. Thompson; Day Warden, William Crawford; Chairman Executive Committee, Rush Randall; Aldermen: T. J. Batson, Percy Benton, Lacy Edmundson, Rose Huey, George Ross, George Rutledge, Steve Durrick and T. R. Copeland; Committeemen: J. S. Randle, W. D. Lanier, J. A. LaRue, E. A. Little, H. W. Massey, E. Milton, R. J. McCabe and E. N. Parnell.

SENA, JOSÉ D., has been elected Mayor of Santa Fe, N. M., over Marcelino Garcia; Facundo Ortiz, City Clerk; James B. Read, Treasurer, and Juan Moya, Manuel E. Ortiz, Thomas P. Gable and Dr. Charles A. Wheelon, as members of the City Council. In Albuquerque, Felix H. Lester defeated W. W. Strong for Mayor; John B. McManus was elected City Clerk and Simon Stern, Treasurer; Mayor K. D. Goodhall was reelected in East Las Vegas over J. A. Ross; Mayor Secundino Romero defeated Dr. M. F. Desmarais in West Las Vegas, while Mayor H. O. Bursum of Socorro was reelected without opposition.

WALLACE, C. K., has been appointed by Mayor Debraie as City Engineer of East Chicago, Ind., to succeed the late Robert W. Reed, and will have as his assistant, Owen Reed, who has been connected with the office since his brother took up the responsibilities last fall. Mr. Wallace has been in the employ of the Chicago Lake Shore and South Bend Interurban Railroad Company, with headquarters at East Chicago.

## Proposals

### SEWER CONSTRUCTION

Bids will be received until noon on Saturday, May 23, 1908, for the construction of 2,450 feet of 12-inch terra cotta sewer and 2,050 feet of 10-inch terra cotta sewer on Merion avenue, and 3,000 feet of 8-inch terra cotta sewer on Highland avenue, averaging from five to eighteen feet in depth, including twenty-seven (27) manholes, and all appurtenances complete.

Plans and specifications may be seen at the office of the Township Commissioners, 205 Mahan Building, Ardmore, Pa., in charge of Robley A. Warner, C.E., Supt. of Health and Drainage.

### BRIDGE

Culpeper, Va.

Plans and specifications will be on file at the Clerk's office, Culpeper, Va., after May 1, 1908, for building a three-span steel bridge at Rapidan, Va. Abutments and piers of concrete. Bids must be filed in Clerk's office of Culpeper, Va., on or before May 14, 1908.

W. E. COONS,  
Clerk of Circuit Court.

### STREET IMPROVEMENT BONDS

Huntsville, Ala.

City of Huntsville offers its 10-year street improvement coupon bonds; amount twenty-eight thousand dollars; denomination five hundred dollars; 5 per cent. per annum, payable semi-annually. Bids received until June 1, 1908. Right to reject all bids, and none less than par considered. Address

R. E. SMITH,  
Mayor.

### IMPROVEMENT BONDS.

Anniston, Ala.

Sealed bids for \$50,000 Public Improvement Bonds will be received at the office of the City Clerk, Anniston, Alabama, until 12 o'clock noon, May 28, 1908.

For particulars apply to  
THOMAS E. KILBY,  
Mayor.  
Anniston, Alabama, May 4, 1908.

### WANTS

WATER WORKS SUPERINTENDENT, technical graduate, experienced with filtration systems or well supply, desires change of location or business; will locate anywhere, but West preferred. Address, 2381, Municipal Journal and Engineer.

WE can interest any man with municipal, civil, general or special experience, capable of earning from \$600 to \$5,000, in technical work; write for information and location of nearest Hapgoods, 305 Broadway, New York, or 1010 Hartford Bldg., Chicago.

## HEENAN Destructors

Sanitary and Economical Disposal of City  
Refuse by Most Advanced European Method

Power Specialty Co. 111 Broadway New York

## LOCATIONS for MANUFACTURERS

of ALL KINDS, including WOOD-WORKING  
PLANTS, SAW MILLS. LIMESTONE and  
SHALE for the manufacture of PORT-  
LAND CEMENT, on the  
ILLINOIS CENTRAL RAILROAD

FOR FULL PARTICULARS ADDRESS  
J. C. CLAIR, Industrial Commissioner  
Room 602, LAKE FRONT and 12th St., CHICAGO, ILL.

The Municipal Journal and Engineer  
should always be on your library table  
as a constant current reference to all  
Municipal work.

